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ABSTRACT

This introductory information packet is designed to increase awareness of assessment and treatment of attention problems in children. Included are excerpts from a variety of sources, including government fact sheets and the classification scheme developed by the American Pediatric Association. Symptoms are discussed in terms of degree of severity. Interventions described range from environmental accommodations to behavior management to medication. Because the intent is only to provide a brief overview, also included is a set of references for further reading and a list of agencies that provide information on attention problems and interventions. The information is divided into the following six sections: (1) classifying attention problems and keeping the environment in perspective as a cause for commonly identified psychosocial problems; (2) the broad continuum of attention problems and developmental variations; (3) an overview of some basic resources, including books for children, teens, and parents, agencies and online resources relevant to attention-related problems and disorders, and consultation cadre contacts; (4) interventions for attention problems; (5) resource aids, including the ERIC Clearinghouse on Disabilities and Gifted Education digest "Providing an Appropriate Education for Children with Attention Deficit Disorder"; and (6) keeping attention problems in broad perspective. (CR)

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An introductory packet on

Attention Problems: Intervention and Resources

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Under the auspices of the School Mental Health Project in the Department of Psychology at UCLA, our center approaches mental health and psychosocial concerns from the broad perspective of addressing barriers to learning and promoting healthy development. Specific attention is given policies and strategies that can counter fragmentation and enhance collaboration between school and community programs.

MISSION: *To improve outcomes for young people by enhancing policies, programs, and practices relevant to mental health in schools.*

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- interface with systemic reform movements to strengthen mental health in schools
- assist localities in building and maintaining their own infrastructure for training, support, and continuing education that fosters integration of mental health in schools

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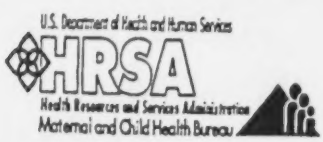
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About the Center's Clearinghouse

The scope of the Center's Clearinghouse reflects the School Mental Health Project's mission -- to enhance the ability of schools and their surrounding communities to address mental health and psychosocial barriers to student learning and promote healthy development. Those of you working so hard to address these concerns need ready access to resource materials. The Center's Clearinghouse is your link to specialized resources, materials, and information. The staff supplements, compiles, and disseminates resources on topics fundamental to our mission. As we identify what is available across the country, we are building systems to connect you with a wide variety of resources. Whether your focus is on an individual, a family, a classroom, a school, or a school system, we intend to be of service to you. Our evolving catalogue is available on request; and available for searching from our website.

What kinds of resources, materials, and information are available?

We can provide or direct you to a variety of resources, materials, and information that we have categorized under three areas of concern:

- Specific psychosocial problems
- Programs and processes
- System and policy concerns

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The *Center for Mental Health in Schools* operates under the auspices of the School Mental Health Project at UCLA.* It is one of two *national centers* concerned with mental health in schools that are funded in part by the U.S. Department of Health and Human Services, Office of Adolescent Health, Maternal and Child Health Bureau, Health Resources and Services Administration -- with co-funding from the Center for Mental Health Services, Substance Abuse and Mental Health Services Administration (Project #U93 MC 00175).

The UCLA Center approaches mental health and psychosocial concerns from the broad perspective of addressing barriers to learning and promoting healthy development. In particular, it focuses on comprehensive, multifaceted models and practices to deal with the many external and internal barriers that interfere with development, learning, and teaching. Specific attention is given policies and strategies that can counter marginalization and fragmentation of essential interventions and enhance collaboration between school and community programs. In this respect, a major emphasis is on enhancing the interface between efforts to address barriers to learning and prevailing approaches to school and community reforms.

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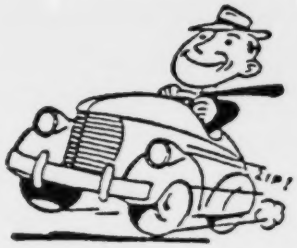

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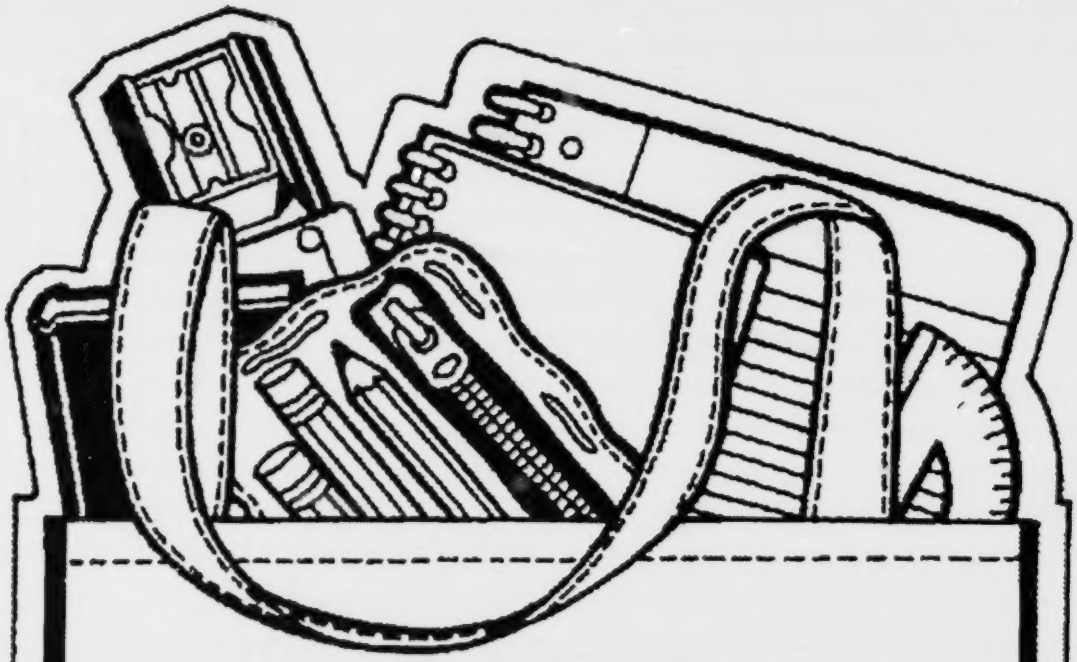

About this Packet

As the world around us is changing at an exponential rate, so must the way we approach attention problems. Over the coming decade, we all will be called upon to play a role in doing something about the many individuals who have trouble learning and performing effectively at school. In responding to this call, it will be essential to have a broad understanding of what causes attention problems and what society in general and schools in particular need to do to address such problems.

This packet serves as a starting point for increasing awareness of assessment and treatment of attention problems. Included are excerpts from a variety of sources, including government fact sheets and the classification scheme developed by the American Pediatric Association.

Symptoms are discussed in terms of degree of s e v e r i t y. Interventions described range from environmental accommodations to behavior management to medication. Because the intent is only to provide a brief overview, also included is a set of references for further reading and a list of agencies that provide information on attention problems and interventions.

Attention Problems: Interventions and Resources

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I. Classifying Attention Problems: Keeping the Environment in Perspective as a Cause of Commonly Identified Psychosocial Problems

A. Labeling Troubled and Troubling Youth

B. Environmental Situations and Potentially Stressful Events

C. Attention Problems and Motivation

I. Classifying Attention Problems:

A large number of students are unhappy and emotionally upset; only a small percent are clinically depressed. A large number of youngsters have trouble behaving in classrooms; only a small percent have attention deficit or a conduct disorder. In some schools, large numbers of students have problems learning; only a few have learning disabilities. Individuals suffering from true internal pathology represent a relatively small segment of the population. A caring society tries to provide the best services for such individuals; doing so includes taking great care not to misdiagnose others whose "symptoms" may be similar, but are caused by factors other than internal pathology. Such misdiagnoses lead to policies and practices that exhaust available resources in ineffective ways. A better understanding of how the environment might cause problems and how focusing on changing the environment might prevent problems is essential.

A. Labeling Troubled and Troubling Youth: The Name Game

She's depressed.

That kid's got an attention deficit hyperactivity disorder.

He's learning disabled.

What's in a name? Strong images are associated with diagnostic labels, and people act upon these images. Sometimes the images are useful generalizations; sometimes they are harmful stereotypes. Sometimes they guide practitioners toward good ways to help; sometimes they contribute to "blaming the victim" -- making young people the focus of intervention rather than pursuing system deficiencies that are causing the problem in the first place. In all cases, diagnostic labels can profoundly shape a person's future.

Youngsters manifesting emotional upset, misbehavior, and learning problems commonly are assigned psychiatric labels that were created to categorize internal disorders. Thus, there is increasing use of terms such as ADHD, depression, and LD. This happens despite the fact that the problems of most youngsters are not rooted in internal pathology. Indeed, many of their troubling symptoms would not have developed if their environmental circumstances had been appropriately different.

Diagnosing Behavioral, Emotional, and Learning Problems

The thinking of those who study behavioral, emotional, and learning problems has long been dominated by models stressing *person* pathology. This is evident in discussions of cause, diagnosis, and intervention strategies. Because so much discussion focuses on person pathology, diagnostic systems have not been developed in ways that adequately account for psychosocial problems.

Many practitioners who use prevailing diagnostic labels understand that most problems in human functioning result from the interplay of person and environment. To counter nature *versus* nurture biases in thinking about problems, it helps to approach all diagnosis guided by a broad perspective of what determines human behavior.

A Broad View of Human Functioning

Before the 1920's, dominant thinking saw human behavior as determined primarily by person variables, especially inborn characteristics. As behaviorism gained in influence, a strong competing view arose. Behavior was seen as shaped by environmental influences, particularly the stimuli and reinforcers one encounters.

Today, human functioning is viewed in *transactional* terms -- as the product of a reciprocal interplay between person and environment (Bandura, 1978). However, prevailing approaches to labeling and addressing human problems still create the impression that problems are determined by *either* person or environment variables. This is both unfortunate and unnecessary -- unfortunate because such a view limits progress with respect to research and practice, unnecessary because a transactional view encompasses the position that problems may be caused by person, environment, or both. This broad paradigm encourages a comprehensive perspective of cause and correction.

Toward a Broad Framework

A broad framework offers a useful *starting* place for classifying behavioral, emotional, and learning problems in ways that avoid over-diagnosing internal pathology. Such problems can be differentiated along a continuum that separates those caused by internal factors, environmental variables, or a combination of both.

Problems caused by the environment are placed at one end of the continuum (referred to as Type I problems). At the other end are problems caused primarily by pathology within the person (Type III problems). In the middle are problems stemming from a relatively equal contribution of environmental and person sources (Type II problems).

Diagnostic labels meant to identify *extremely* dysfunctional problems *caused by pathological conditions within a person* are reserved for individuals who fit the Type III category.

At the other end of the continuum are individuals with problems arising from factors outside the person (i.e., Type I problems). Many people grow up in impoverished and hostile environmental circumstances. Such conditions should be considered first in hypothesizing what *initially* caused the individual's behavioral, emotional, and learning problems. (After environmental causes are ruled out, hypotheses about internal pathology become more viable.)

To provide a reference point in the middle of the continuum, a Type II category is used. This group consists of persons who do not function well in situations where their individual differences and minor vulnerabilities are poorly accommodated or are responded to hostilely. The problems of an individual in this group are a relatively equal product of person characteristics and failure of the environment to accommodate that individual.

There are, of course, variations along the continuum that do not precisely fit a category. That is, at each point between the extreme ends, environment-person transactions are the cause, but the degree to which each contributes to the problem varies. Toward the environment end of the continuum, environmental factors play a bigger role (represented as E<--->p). Toward the other end, person variables account for more of the problem (thus e<--->P).

Problems Categorized on a Continuum Using a Transactional View of the Primary Locus of Cause

Problems caused by factors in the environment (E)	Problems caused equally by environment and person	Problems caused by factors in the the person (P)
E (E<--->p)	E<--->P (e<--->P)	P
Type I problems	Type II problems	Type III problems
•caused primarily by environments and systems that are deficient and/or hostile	•caused primarily by a significant *mismatch* between individual differences and vulnerabilities and the nature of that person's environment (not by a person's pathology)	•caused primarily by person factors of a pathological nature
•problems are mild to moderately severe and narrow to moderately pervasive	•problems are mild to moderately severe andpervasive	•problems are moderate to profoundly severe and moderate to broadly pervasive

Clearly, a simple continuum cannot do justice to the complexities associated with labeling and differentiating psychopathology and psychosocial problems. However, the above conceptual scheme shows the value of starting with a broad model of cause. In particular, it helps counter the tendency to jump prematurely to the conclusion that a problem is caused by deficiencies or pathology within the individual and thus can help combat the trend toward blaming the victim (Ryan, 1971). It also helps highlight the notion that improving the way the environment accommodates individual differences may be a sufficient intervention strategy.

There is a substantial community-serving component in policies and procedures for classifying and labeling exceptional children and in the various kinds of institutional arrangements made to take care of them. "To take care of them" can and should be read with two meanings: to give children help and to exclude them from the community.

Nicholas Hobbs

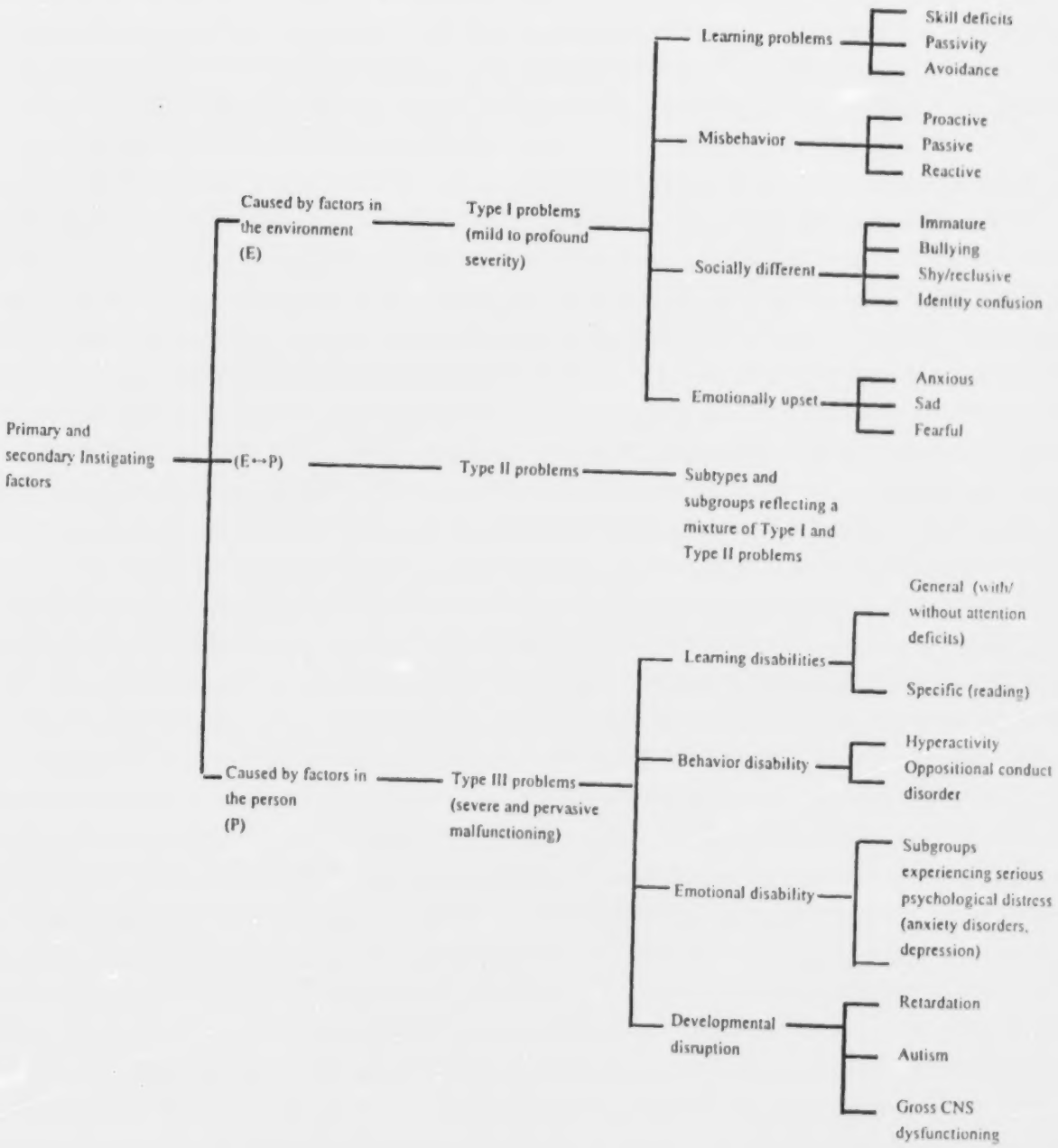
After the general groupings are identified, it becomes relevant to consider the value of differentiating subgroups or subtypes within each major type of problem. For example, subtypes for the Type III category might first differentiate behavioral, emotional, or learning problems arising from serious internal pathology (e.g., structural and functional malfunctioning within the person that causes disorders and disabilities and disrupts development). Then subtypes might be differentiated within each of these categories. For illustrative purposes: Figure 2 presents some ideas for subgrouping Type I and III problems.

References

Bandura, A. (1978). The self system in reciprocal determination. *American Psychologist, 33*, 344-358.

Ryan, W. (1971). *Blaming the victim.* New York: Random House.

Figure 2: Categorization of Type I, II, and III Problems



Source: H. S. Adelman and L. Taylor (1993). Learning problems and learning disabilities. Pacific Grove. Brooks/Cole. Reprinted with permission.

B. Environmental Situations and Potentially Stressful Events

The American Academy of Pediatrics has prepared a guide on mental health for primary care providers. The guide suggests that commonly occurring stressful events in a youngsters life can lead to common behavioral responses. Below are portions of Tables that give an overview of such events and responses.

Environmental Situations and Potentially Stressful Events Checklist

Challenges to Primary Support Group
- Challenges to Attachment Relationship
- Death of a Parent or Other Family Member
- Marital Discord
- Divorce
- Domestic Violence
- Other Family Relationship Problems
- Parent-Child Separation

Changes in Caregiving
- Foster Care/Adoption/Institutional Care
- Substance-Abusing Parents
- Physical Abuse
- Sexual Abuse
- Quality of Nurture Problem
- Neglect
- Mental Disorder of Parent
- Physical Illness of Parent
- Physical Illness of Sibling
- Mental or Behavioral disorder of Sibling

Other Functional Change in Family
- Addition of Sibling
- Change in Parental Caregiver

Community of Social Challenges
- Acculturation
- Social Discrimination and/or Family Isolation

Educational Challenges
- Illiteracy of Parent
- Inadequate School Facilities
- Discord with Peers/Teachers

Parent or Adolescent Occupational Challenges
- Unemployment
- Loss of Job
- Adverse Effect of Work Environment

Housing Challenges
- Homelessness
- Inadequate Housing
- Unsafe Neighborhood
- Dislocation

Economic Challenges
- Poverty
- Inadequate Financial Status

Legal System or Crime Problems

Other Environmental Situations
- Natural Disaster
- Witness of Violence

Health-Related Situations
- Chronic Health Conditions
- Acute Health Conditions

*Adapted from The Classification of Child and Adolescent Mental Diagnoses in Primary Care (1996). American Academy of Pediatrics.

Common Behavioral Responses to Environmental Situations and Potentially Stressful Events

INFANCY-TODDLERHOOD (0-2Y)
BEHAVIORAL MANIFESTATIONS

- **Illness-Related Behaviors**
  - N/A
- **Emotions and Moods**
  - Change in crying
  - Change in mood
  - Sullen, withdrawn
- **Impulsive/Hyperactive or Inattentive Behaviors**
  - Increased activity
- **Negative/Antisocial Behaviors**
  - Aversive behaviors, i.e., temper tantrum, angry outburst
- **Feeding, Eating, Elimination Behaviors**
  - Change in eating
  - Self-induced vomiting
  - Nonspecific diarrhea, vomiting
- **Somatic and Sleep Behaviors**
  - Change in sleep
- **Developmental Competency**
  - Regression or delay in developmental attainments
  - Inability to engage in or sustain play
- **Sexual Behaviors**
  - Arousal behaviors
- **Relationship Behaviors**
  - Extreme distress with separation
  - Absence of distress with separation
  - Indiscriminate social interactions
  - Excessive clinging
  - Gaze avoidance, hypervigilant gaze...

MIDDLE CHILDHOOD (6-12Y)
BEHAVIORAL MANIFESTATIONS

- **Illness-Related Behaviors**
  - Transient physical complaints
- **Emotions and Moods**
  - Sadness
  - Anxiety
  - Changes in mood
  - Preoccupation with stressful situations
  - Self -destructive
  - Fear of specific situations
  - Decreased self-esteem
- **Impulsive/Hyperactive or Inattentive Behaviors**
  - Inattention
  - High activity level
  - Impulsivity
- **Negative/Antisocial Behaviors**
  - Aggression
  - Noncompliant
  - Negativistic
- **Feeding, Eating, Elimination Behaviors**
  - Change in eating
  - Transient enuresis, encopresis
- **Somatic and Sleep Behaviors**
  - Change in sleep
- **Developmental Competency**
  - Decrease in academic performance
- **Sexual Behaviors**
  - Preoccupation with sexual issues
- **Relationship Behaviors**
  - Change in school activities
  - Change in social interaction such as withdrawal
  - Separation fear
  - Fear of being alone
- **Substance Use/Abuse...**

EARLY CHILDHOOD (3-5Y)
BEHAVIORAL MANIFESTATIONS

- **Illness-Related Behaviors**
  - N/A
- **Emotions and Moods**
  - Generally sad
  - Self-destructive behaviors
- **Impulsive/Hyperactive or Inattentive Behaviors**
  - Inattention
  - High activity level
- **Negative/Antisocial Behaviors**
  - Tantrums
  - Negativism
  - Aggression
  - Uncontrolled, noncompliant
- **Feeding, Eating, Elimination Behaviors**
  - Change in eating
  - Fecal soiling
  - Bedwetting
- **Somatic and Sleep Behaviors**
  - Change in sleep
- **Developmental Competency**
  - Regression or delay in developmental attainments
- **Sexual Behaviors**
  - Preoccupation with sexual issues
- **Relationship Behaviors**
  - Ambivalence toward independence
  - Socially withdrawn, isolated
  - Excessive clinging
  - Separation fears
  - Fear of being alone

ADOLESCENCE (13-21Y)
BEHAVIORAL MANIFESTATIONS

- **Illness-Related Behaviors**
  - Transient physical complaints
- **Emotions and Moods**
  - Sadness
  - Self-destructive
  - Anxiety
  - Preoccupation with stress
  - Decreased self-esteem
  - Change in mood
- **Impulsive/Hyperactive or Inattentive Behaviors**
  - Inattention
  - Impulsivity
  - High activity level
- **Negative/Antisocial Behaviors**
  - Aggression
  - Antisocial behavior
- **Feeding, Eating, Elimination Behaviors**
  - Change in appetite
  - Inadequate eating habits
- **Somatic and Sleep Behaviors**
  - Inadequate sleeping habits
  - Oversleeping
- **Developmental Competency**
  - Decrease in academic achievement
- **Sexual Behaviors**
  - Preoccupation with sexual issues
- **Relationship Behaviors**
  - Change in school activities
  - School absences
  - Change in social interaction such as withdrawal
- **Substance Use/Abuse...**

* Adapted from The Classification of Child and Adolescent Mental Diagnoses in Primary Care (1996). American Academy of Pediatrics

C. *Attention Problems and Motivation*

Many individuals with learning problems are described not only as learning disabled, but also as hyperactive, distractable, impulsive, behavior disordered, and so forth. Their behavior patterns are seen as interfering with efforts to remedy their learning problems, and the conclusion often is that such interfering behaviors have to be eliminated or minimized in order to pursue instruction. The focus has been on any actions of an individual that compete with instruction.

Besides trying to reduce the frequency of disruptive actions directly, programs have been designed to alter such behavior by improving

- ⇨ impulse control
- ⇨ selective attention
- ⇨ sustained attention and follow-through
- ⇨ perseverence
- ⇨ frustration tolerance
- ⇨ social awareness and skills

Variations in focus derive from the ways in which interfering behaviors are viewed. Some professionals see the problems as a skill deficiency and have tried to improve the situation through instruction. Others see the problem as a matter of control and have addressed it through the use of control techniques. For those children diagnosed as hyperactive or as having attention deficit disorders with hyperactivity, a number of controversial nonpsychoeducational interventions also have been advocated (such as the use of stimulant drugs or special diets to avoid chemical additives in food).

Current work in psychology has brought renewed attention to motivation as a central concept in understanding learning and attention problems. This work is just beginning to find its way into applied fields and programs.

Although motivation has always been a concern to those who work with learning problems, the stress is ususally on how to use extrinisc to mobilize the learner and maintain participation. There is a recent emphasis on the relationship of learning problems to deficiencies in intrinsic motivation. The general content focus has been on

- ⇨ increasing feelings of self-determination
- ⇨ increasing feelings of competence and expectations of success
- ⇨ increasing feelings of interpersonal relatedness
- ⇨ increasing the range of interests and satisfactions related to learning

In repsonse to concerns about deficiencies in intrinsic motivation, remedial activities have been directed at improving

- ⇨ awareness of personal motives and true capabilities
- ⇨ learning to set valued and appropriate goals
- ⇨ learning to value and to make appropriate and satisfying choices
- ⇨ learning to value and accept responsibility for choice

II. The Broad Continuum of Attention Problems

A. Developmental Variations

B. Problems

C. Disorders

D. Thinking About Differential Diagnosis

The American Academy of Pediatrics has produced a manual for primary care providers that gives guidelines for psychological behaviors that are within the range expected for the age of the child, problems that may disrupt functioning but are not sufficiently severe to warrant the diagnosis of a mental disorder, and disorders that do meet the criteria outlined in the Diagnostic and Statistical Manual of Mental Disorders (4th ed.) of the American Psychiatric Association.

Just as the continuum of Type I, II, and III problems presented in Section IA does, the pediatric manual provides a way to describe problems and plan interventions without prematurely deciding that internal pathology is causing the problems. The manual's descriptions are a useful way to introduce the range of concerns facing parents and school staff. Therefore, these descriptions provide the bases for the following presentation of attention problems commonly seen in school settings.

In addition to using material from *The Classification of Child and Adolescent Mental Diagnoses in Primary Care* published by the American Academy of Pediatric throughout this packet, we also have incorporated fact sheets from major agencies and excerpted key information from journal articles to provide users with a perspective of how the field currently presents itself.

A. Developmental Variations: Behaviors within the Range of Expected Behaviors for That Age Group*

DEVELOPMENTAL VARIATION

Hyperactive/Impulsive

Variation

Young children in infancy and in the pre-school years are normally very active and impulsive and may need constant supervision to avoid injury. Their constant activity may be stressful to adults who do not have the energy or patience to tolerate the behavior.

During school years and adolescence, activity may be high in play situations and impulsive behaviors may normally occur, especially in peer pressure situations.

High levels of hyperactive/impulsive behavior do not indicate a problem or disorder if the behavior does not impair functioning.

COMMON DEVELOPMENTAL PRESENTATIONS

Infancy
Infants will vary in their responses to stimulation. Some infants may be overactive to sensations such as touch and sound and may squirm away from the caregiver, while others find it pleasurable to respond with increased activity.

Early Childhood
The child runs in circles, doesn't stop to rest, may bang into objects or people, and asks questions constantly.

Middle Childhood
The child plays active games for long periods. The child may occasionally do things impulsively, particularly when excited.

Adolescence
The adolescent engages in active social activities (e.g., dancing) for long periods, may engage in risky behaviors with peers.

SPECIAL INFORMATION

Activity should be thought of not only in terms of actual movement, but also in terms of variations in responding to touch, pressure, sound, light, and other sensations. Also, for the infant and young child, activity and attention are related to the interaction between the child and the caregiver, e.g., when sharing attention and playing together.

Activity and impulsivity often normally increase when the child is tired or hungry and decrease when sources of fatigue or hunger are addressed.

Activity normally may increase in new situations or when the child may be anxious. Familiarity then reduces activity.

Both activity and impulsivity must be judged in the context of the caregiver's expectations and the level of stress experienced by the caregiver. When expectations are unreasonable, the stress level is high, and/or the parent has an emotional disorder (especially depression ...), the adult may exaggerate the child's level of activity/impulsivity.

Activity level is a variable of temperament (...).The activity level of some children is on the high end of normal from birth and continues to be high throughout their development.

*Adapted from *The Classification of Child and Adolescent Mental Diagnoses in Primary Care*. (1996) American Academy of Pediatrics.

Note: Dots (...) indicate that the material has been abridged at that point or that the original text refers to another section of the resource that is not included in this guide.

B. Problems--Behaviors Serious Enough to Disrupt Functioning with Peers, at School, at Home, but Not Severe Enough to Meet Criteria of a Mental Disorder.*

PROBLEM

Hyperactive/Impulsive

Behavior Problem

These behaviors become a problem when they are intense enough to begin to disrupt relationships with others or begin to affect the acquisition of age-appropriate skills. The child displays some of the symptoms listed in the section on ADHD predominantly hyperactive/impulsive subtype. However, the behaviors are not sufficiently intense to qualify for a behavioral disorder such as ADHD, or of a mood disorder (see section on Sadness and Related Symptoms), or anxiety disorder (see section on Anxious Symptoms).

A problem degree of this behavior is also likely to be accompanied by other behaviors such as negative emotional behaviors or aggressive/oppositional behaviors.

COMMON DEVELOPMENTAL PRESENTATIONS

Infancy
The infant squirms and has early motor development with increased climbing. Sensory underreactivity and overreactivity as described in developmental variations can be associated with high activity levels.

Early Childhood
The child frequently runs into people or knocks things down during play, gets injured frequently, and does not want to sit for stories or games.

Middle Childhood
The child may butt into other children's games, interrupts frequently, and has problems completing chores.

Adolescence
The adolescent engages in "fooling around" that begins to annoy others and fidgets in class or while watching television.

SPECIAL INFORMATION

In infancy and early childhood, a problem level of these behaviors may be easily confused with cognitive problems such as limited intelligence or specific developmental problems (...). However, cognitive problems and hyperactive/ impulsive symptoms can occur simultaneously.

A problem level of these behaviors may also be seen from early childhood on, as a response to neglect (...), physical/sexual abuse (...), or other chronic stress, and this possibility should be considered.

* Adapted from *The Classification of Child and Adolescent Mental Diagnoses in Primary Care* (1996). American Academy of Pediatrics.

Note: Dots (...) indicate that the material has been abridged at that point or that the original text refers to another section of the resource that is not included in this guide.

C. Disorders that Meet the Criteria of a Mental Disorder as Defined by the Diagnostic and Statistical Manual of the American Psychiatric Association (Edition 4, 1994)

DISORDER

Attention-Deficit/Hyperactivity Disorder

Predominantly Hyperactive-Impulsive Type

This subtype should be used if six (or more) of the following symptoms of hyperactivity-impulsivity (but fewer than six symptoms of inattention (...) have persisted for at least 6 months. They present before the age of 7 years. The symptoms need to be present to a significantly greater degree than is appropriate for the age, cognitive ability, and gender of the child, and the symptoms should be present in more than one setting (e.g., school and home).

Hyperactive-impulsive symptoms:

These symptoms must be present to a degree that is maladaptive and inconsistent with developmental level, resulting in significant impairment.

Hyperactivity
- ☐ often fidgets with hands/feet or squirms in seat
- ☐ often leaves seat in classroom or in other situations in which remaining seated is expected
- ☐ often runs about or climbs excessively in situation in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness)
- ☐ often has difficulty playing or engaging in leisure activities quietly
- ☐ is often "on the go" or often acts as if "driven by a motor"
- ☐ often talks excessively

Impulsivity
- ☐ often blurts out answers before questions are completed
- ☐ often has difficulty awaiting turn
- ☐ often interrupts or intrudes on others

* Adapted from *The Classification of Child and Adolescent Mental Diagnoses in Primary Care* (1996). American Academy of Pediatrics.

Note: Dots (...) indicate that the material has been abridged at that point or that the original text refers to another section of the resource that is not included in this guide.

COMMON DEVELOPMENTAL PRESENTATIONS

Infancy
The infant squirms frequently and has early motor development with excessive climbing. The infant has a hard time focusing on people or objects and squirms constantly. The infant does not organize purposeful gestures or behavior. The infant may show interest in gross motor activities such as excessive climbing but may also have difficulties in motor planning and sequencing (imitating complex movements). However, these behaviors are nonspecific and a disorder diagnosis is extremely difficult to make in this age group.

Early Childhood
The child runs through the house, jumps and climbs excessively on furniture, will not sit still to eat or be read to, and is often into things.

Middle Childhood
The child is often talking and interrupting, cannot sit still at meal times, is often fidgeting when watching television, makes noise that is disruptive, and grabs from others.

Adolescence
The adolescent is restless and fidgety while doing any and all quiet activities, interrupts and "bugs" other people, and gets into trouble frequently. Hyperactive symptoms decrease or are replaced with a sense of restlessness.

SPECIAL INFORMATION

Specific environmental situations and stressors often make a significant contribution to the severity of these behaviors, though they are seldom entirely responsible for a disorder-level diagnosis of these behaviors. Situations and stressors that should be systematically assessed include:

Marital discord/divorce (...)
Physical abuse/sexual abuse (...)
Mental disorder of parent (...)
Other family relationship problems (...)

Difficulties with cognitive/adaptive skills, academic skills, and speech or language skills often lead to frustration and low self-esteem that contribute to the severity of these behaviors. These conditions may also co-exist with ADHD and therefore should be systematically assessed.

DISORDER, CONTINUED

Predominantly Hyperactive-Impulsive Type, Continued

Some hyperactive-impulsive or inattentive symptoms that caused impairment were present before age 7 years. Some impairment from the symptoms is present in two or more settings (e.g., at school and at home). There must be clear evidence of clinically significant impairment in social, academic, or occupational functioning. The symptoms do not occur exclusively during the course of an autistic disorder (see following differential diagnostic information), and are not better accounted for by another mental disorder (see following differential diagnosis information).

Combined Type

This subtype should be used if criteria, six (or more) symptoms of hyperactivity-impulsivity and six (or more) of the symptoms of the inattention (...), have persisted for at least 6 months.

Attention-Deficit/Hyperactivity Disorder, NOS

(see DSM-IV Criteria ...)

COMMON DEVELOPMENTAL PRESENTATIONS CONTINUED

SPECIAL INFORMATION

Specific environmental situations and stressors often make a significant contributions to the severity of these behaviors, though they are seldom entirely responsible for a disorder-level diagnosis of these behaviors. Situations and stressors that should be systematically assessed include:

Marital discord/divorce, (...)
Physical abuse/sexual abuse, (...)
Mental disorder of parent, (...)
Other family relationship problems, (...)
Loss/bereavement, (...)

Difficulties with cognitive/adaptive skills, academic skills, and speech and language skills often lead to frustration and low self-esteem that both contribute to the severity of these behaviors. These conditions may also co-exist with ADHD and therefore should be systematically assessed.

* Adapted from The Classification of Child and Adolescent Mental Diagnoses in Primary Care (1996). American Academy of Pediatrics

Note: Dots (...) indicate that the material has been abridged at that point or that the original text refers to another section of the resource that is not included in this guide.

D. Thinking About Differential Diagnosis

ADHD and Children Who Are Gifted

ERIC Clearinghouse on Disabilities and Gifted Education, Reston, VA.
Council for Exceptional Children, Reston, VA
ERIC/CUE Digest, Number 522, ED358673 Authors: J.T. Webb & D. Latimer

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Howard's teachers say he just isn't working up to his ability. He doesn't finish his assignments, or just puts down answers without showing his work; his handwriting and spelling are poor. He sits and fidgets in class, talks to others, and often disrupts class by interrupting others. He used to shout out the answers to the teachers' questions (they were usually right), but now he daydreams a lot and seems distracted. Does Howard have Attention Deficit Hyperactivity Disorder (ADHD), is he gifted, or both?

Frequently, bright children have been referred to psychologists or pediatricians because they exhibited certain behaviors (e.g., restlessness, inattention, impulsivity, high activity level, day-dreaming) commonly associated with a diagnosis of ADHD. Formally, the Diagnostic and Statistical Manual of Mental Disorders (DSM-III-R) (American Psychiatric Association) lists 14 characteristics that may be found in children diagnosed as having ADHD. At least 8 of these characteristics must be present, the onset must be before age 7, and they must be present for at least six months.

DSM-III-R DIAGNOSTIC CRITERIA FOR ATTENTION-DEFICIT

HYPERACTIVITY DISORDER

Note: DSM-III-R Diagnostic Criteria For Attention-Deficit Hyperactivity Disorder reprinted with permission from the "Diagnostic and Statistical Manual of Mental Disorders," Third Edition, Revised, Washington, DC, American Psychiatric Association, 1987.

1. Often fidgets with hands or feet or squirms in seat (in adolescents may be limited to subjective feelings of restlessness).
2. Has difficulty remaining seated when required to.
3. Is easily distracted by extraneous stimuli.
4. Has difficulty awaiting turns in games or group situations.
5. Often blurts out answers to questions before they have been completed.
6. Has difficulty following through on instructions from others (not due to oppositional behavior or failure of comprehension).

7. Has difficulty sustaining attention in tasks or play activities.

8. Often shifts from one uncompleted activity to another.

9. Has difficulty playing quietly.

10. Often talks excessively.

11. Often interrupts or intrudes on others, e.g., butts into other people's games.

12. Often does not seem to listen to what is being said to him or her.

13. Often loses things necessary for tasks or activities at school or at home (e.g., toys, pencils, books).

14. Often engages in physically dangerous activities without considering possible consequences (not for the purpose of thrill-seeking), e.g., runs into street without looking.

Almost all of these behaviors, however, might be found in bright, talented, creative, gifted children. Until now, little attention has been given to the similarities and differences between the two groups, thus raising the potential for misidentification in both areas -- giftedness and ADHD.

Sometimes, professionals have diagnosed ADHD by simply listening to parent or teacher descriptions of the child's behaviors along with a brief observation of the child. Other times, brief screening questionnaires are used, although these questionnaires only quantify the parents' or teachers' descriptions of the behaviors (Parker, 1992). Children who are fortunate enough to have a thorough physical evaluation (which includes screening for allergies and other metabolic disorders) and extensive psychological evaluations, which include assessment of intelligence, achievement, and emotional status, have a better chance of being accurately identified. A child may be gifted and have ADHD. Without a thorough professional evaluation, it is difficult to tell.

HOW CAN PARENTS OR TEACHERS DISTINGUISH BETWEEN ADHD AND GIFTEDNESS?

Seeing the difference between behaviors that are sometimes associated with giftedness but also characteristic of ADHD is not easy, as the following parallel lists show.

BEHAVIORS ASSOCIATED WITH ADHD (BARKLEY, 1990)

1. Poorly sustained attention in almost all situations

2. Diminished persistence on tasks not having immediate consequences

3. Impulsivity, poor delay of gratification

4. Impaired adherence to commands to regulate or inhibit behavior in social contexts

5. More active, restless than normal children

6. Difficulty adhering to rules and regulations

BEHAVIORS ASSOCIATED WITH GIFTEDNESS (WEBB, 1993)

1. Poor attention, boredom, daydreaming in specific situations

2. Low tolerance for persistence on tasks that seem irrelevant

3. Judgment lags behind development of intellect

4. Intensity may lead to power struggles with authorities

5. High activity level; may need less sleep

6. Questions rules, customs and traditions

CONSIDER THE SITUATION AND SETTING

It is important to examine the situations in which a child's behaviors are problematic. Gifted children typically do not exhibit problems in all situations. For example, they may be seen as ADHD-like by one classroom teacher, but not by another; or they may be seen as ADHD at school, but not by the scout leader or music teacher. Close examination of the troublesome situation generally reveals other factors which are prompting the problem behaviors. By contrast, children with ADHD typically exhibit the problem behaviors in virtually all settings "including at home and at school" though the extent of their problem behaviors may fluctuate significantly from setting to setting (Barkley, 1990), depending largely on the structure of that situation. That is, the behaviors exist in all settings, but are more of a problem in some settings than in others.

In the classroom, a gifted child's perceived inability to stay on task is likely to be related to boredom, curriculum, mismatched learning style, or other environmental factors. Gifted children may spend from one-fourth to one-half of their regular classroom time waiting for others to catch up -- even more if they are in a heterogeneously grouped class. Their specific level of academic achievement is often two to four grade levels above their actual grade placement. Such children often respond to non-challenging or slow-moving classroom situations by "off-task" behavior, disruptions, or other attempts at self-amusement. This use of extra time is often the cause of the referral for an ADHD evaluation.

Hyperactive is a word often used to describe gifted children as well as children with ADHD. As with attention span, children with ADHD have a high activity level, but this activity level is often found across situations (Barkley, 1990). A large proportion of gifted children are highly active too. As many as one-fourth may require less sleep; however, their activity is generally focused and directed (Clark, 1992; Webb, Meckstroth, & Tolan, 1982), in contrast to the behavior of children with ADHD. The intensity of gifted children's concentration often permits them to spend long periods of time and much energy focusing on whatever truly interests them. Their specific interests may not coincide, however, with the desires and expectations of teachers or parents.

While the child who is hyperactive has a very brief attention span in virtually every situation (usually except for television or computer games), children who are gifted can concentrate comfortably for long periods on tasks that interest them, and do not require immediate completion of those tasks or immediate consequences. The activities of children with ADHD tend to be both continual and random; the gifted child's activity usually is episodic and directed to specific goals.

While difficulties and adherence to rules and regulations has only begun to be accepted as a sign of ADHD (Barkley, 1990), gifted children may actively question rules, customs and traditions, sometimes creating complex rules which they expect others to respect or obey. Some engage in power struggles. These behaviors can cause discomfort for parents, teachers, and peers.

One characteristic of ADHD that does not have a counterpart in children who are gifted is variability of task performance. In almost every setting, children with ADHD tend to be highly inconsistent in the quality of their performance (i.e., grades, chores) and the amount of time used to accomplish tasks (Barkley, 1990). Children who are gifted routinely maintain consistent efforts and high grades in classes when they like the teacher and are intellectually challenged, although they may resist some aspects of the work, particularly repetition of tasks perceived as dull. Some gifted children may become intensely focused and determined (an aspect of their intensity) to produce a product that meets their self-imposed standards.

WHAT TEACHERS AND PARENTS CAN DO

Determining whether a child has ADHD can be particularly difficult when that child is also gifted. The use of many instruments, including intelligence tests administered by qualified professionals, achievement and personality tests, as well as parent and teacher rating scales, can help the professional determine the subtle differences between ADHD and giftedness. Individual evaluation allows the professional to establish maximum rapport with the child to get the best effort on the tests. Since the test situation is constant, it is possible to make better comparisons among children. Portions of the intellectual and achievement tests will reveal attention problems or learning disabilities, whereas personality tests are designed to show whether emotional problems (e.g., depression or anxiety) could be causing the problem behaviors. Evaluation should be followed by appropriate curricular and instructional modifications that account for advanced knowledge, diverse learning styles, and various types of intelligence.

Careful consideration and appropriate professional evaluation are necessary before concluding that bright, creative, intense youngsters like Howard have ADHD. Consider the characteristics of the gifted/talented child and the child's situation. Do not hesitate to raise the possibility of giftedness with any professional who is evaluating the child for ADHD; however, do not be surprised if the professional has had little training in recognizing the characteristics of gifted/talented children (Webb, 1993). It is important to make the correct diagnosis, and parents and teachers may need to provide information to others since giftedness is often neglected in professional development programs.

REFERENCES

American Psychiatric Association (1987). *Diagnostic and statistical manual of mental disorders*, Third edition, revised. Washington, DC: Author.

Barkley, R. A. (1990). *Attention deficit hyperactivity disorder: A handbook for diagnosis and treatment.* Guilford Press: New York.

Clark, B. (1992). *Growing up gifted.* Macmillan: New York.

Parker, H. C. (1992). *The ADD hyperactivity handbook for schools*. Plantation, FL: Impact Publications.

Webb, J. T. (1993). Nurturing social-emotional development of gifted children. In K. A. Heller, F. J. Monks, and A. H. Passow (Eds.), *International Handbook for Research on Giftedness and Talent,* pp. 525-538. Oxford: Pergamon Press.

Webb, J. T., Meckstroth, E. A., and Tolan, S. S. (1982). *Guiding the gifted child: A practical source for parents and teachers.* Dayton: Ohio Psychology Press.

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ADD Look-Alikes: Same Symptoms but Different Problems

From an article by Servio Carroll, National Association of School Psychologists Communique Special Edition, March 1997 (volume 25, no. 6; Insert)

Guidelines for Educators

Background

Due to the wide variety of psychomedical and biomedical problems that can be mistaken for Attention Deficit Disorder (ADD), or that may coexist with ADD, it is always essential for a child to be carefully evaluated. Medical specialists are working to develop a more precise idea of which hyperactive children and adolescents really have ADD and which have look-alike problems that only resemble this disorder. Look-alike ADD children may fulfill the diagnostic criteria for ADD but have a completely different problem and, therefore, should receive a different diagnosis. These ADD look-alikes are important to distinguish because their long-term course and treatment may be quite different from children with classical ADD. There are several psychomedical problems or medical disorders that can mimic ADD, resulting in an ADD look-alike child.

Depression

Depression is certainly common in adolescents and children, just as it is in adults. While it may seem unlikely that a depressed person would be "hyper" (since many depressed people seem to talk and think slowly and move with great effort), some inattentive children with impulsive and hyperactive behavior are actually depressed. These children may just have passing symptoms of depressed mood (e.g., feeling blue or demoralized) or more persistent or even chroni- cally bad moods (dysthymic disorder), or have the psychiatric diagnosis of depression with its accompanying physical changes (major depression). Even though these children may have prominent ADD-like symptoms, treating their depression is more successful than treating the ADD symptoms.

Stress-induced

Anxiety states caused by environmental stress may present as ADD. Certain children living in a stressful home situation or adolescents dealing with social or academic pressures may look like they have ADD. Obviously, helping them cope with the stress in their lives is preferable to the use of stimulant medications. Even mild stress can produce symptoms that mimic ADD.

Biologically-based Anxiety Disorders

Certain medical disorders such as separation anxiety disorder or obsessive compulsive disorder are treated quite differently from ADD--even though many of the symptoms of these disorders may look the same as ADD symptoms. However, stimulants often worsen the symptoms of these anxiety disorders, which are better treated with different medications and approaches.

Child Abuse or Neglect

In certain circumstances, the victims of sexual abuse, physical abuse or neglect can present with symptoms of ADD. Even after a limited period of abuse or neglect, these children may continue to show symptoms that are difficult to distinguish from ADD.

Bipolar Disorders

Another biomedical condition that may mimic ADD is the family of bipolar disorders. The most severe version of bipolar disorder in adults is manic-depressive illness, but most common bipolar disorders are more mild. Bipolar disorders in children and adolescents can present with impulsivity, inattention and hyper-activity, along with overly strong feelings or an overbearing manner, irritability or unprovoked hostility, and often difficulty in "getting going" in the morning. It is only the more severe

forms of bipolar disorder in adolescents and children that show amazingly energized and engthy temper tantrums with gross destructiveness during their brief or lengthy rages. About half of boys (and perhaps a quarter of the girls) with bipolar disorders fulfill diagnostic criteria for ADD, but bipolar disorder tends to appear in families in which depression or bipolar disorder has emerged before. Although stimulants can sometimes help these children with bipolar disorder, stimulants often make the symptoms worse and can be quite risky. Lithium and other medications can be much more helpful.

Schizophrenia

Schizophrenia is a serious biomedical disorder that can include ADD symptoms. Children with schizophrenia are relatively uncommon, typically come from families in which schizophrenia has emerged before, and represent an extremely small fraction of the children with ADD symptoms. Again, stimulant medications can be risky for these children, and other medications and treatments are strongly preferable.

Other Medical Disorders

Certain medical disorders of sleep (or arousal), malfunctions of the thyroid gland and excessive lead ingestion may also present with symptoms that are typically seen in children with ADD.

Summary: Cautions in Diagnosis and Treatment

Look-alike ADD children may fulfill the diagnostic criteria for ADD but have a completely different problem and, therefore, should receive a different diagnosis. All of the above conditions may cause a child to behave impulsively and show difficulties in attention and hyperactivity that are hard (and perhaps impossible in some instances) to distinguish from ADD. Particularly if a child's situation is worsening with age, it is important to consider the possibility that ADD may not be the sole or even primary problem. Also, if the ADD is associated with bad dreams, bad moods or disturbing thoughts, or if there is a family medical history of psychiatric disorders, then it is important to be sure that mimicking disorders and additional problems are not present.

If a medical or other psychiatric disorder is presenting as ADD, a treatment that merely improves the ADD symptoms may leave a residue of untreated behavioral problems, mood abnormalities or disorders of physiology. In these cases, even if stimulants are helpful or if environmental changes improve the child's self control, it is critical to make sure that the other (and perhaps more serious) problems are not left to smolder. Given the variety of disorders that can be mistaken for ADD, or that may co-exist with ADD, a comprehensive evaluation of the child is always important. Numerous problems must be contemplated, assessed and "ruled out" before a diagnosis of ADD can be made. It is no longer sufficient to start treatment for ADD based on observations of "tuning out" or misbehavior. This disorder needs a psychomedical evaluation that matches our growing awareness of the complexity that goes by the simple name of ADD.

Resources

Barkley, R. (1990). *Attention Deficit Hyperactivity Disorder: A handbook for diagnosis and treatment*. New York: The Guilford Press.

DuPaul, G.J., & Stoner, G. (1994). *ADHD in the schools: Assessment and intervention strategies*. New York: Guilford Press.

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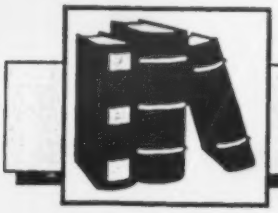
III. A Quick Overview of Some Basic Resources

A. A Few References and Other Sources of Information

B. Agencies and Online Resources Relevant to Attention-Related Problems

C. Attention Problems: Consultation Cadre Contacts



A. A Few References and Other Sources for Information*

Adelman, H.S. & Taylor, L. (1993). *Learning Problems & Learning Disabilities: Moving Forward.* Brooks/ Cole Publishing Company, Pacific Grove, CA.

Barkley, R.A. (1996). Attention-deficit/hyperactivity disorder. In E.J. Mash & R.A. Barkley (Eds.), *Child psychopathology.* New York: Guilford.

Bloomingdale, L. (Ed.). (1988). Next research in attention treatment, and psychopharmacology. *Attention deficit disorder, Vol. 3.*, Oxford: Pergamon Press, Inc.

Buelow, G. & Hebert, S. (1996). *Counselor's resource on psychiatric medications: Issues of treatment and referral.* Pacific Grove, CA: Brooks/Cole.

Campbell, M., & Cueva, J. (1995). Psychopharmacology in child and adolescent psychiatry: A review of the past seven years: 11. *Journal of the American Academy of Child and Adolescent Psychiatry,* 34(10), 1262-1272.

Carlson. G., Ranade, L., & Qadir, A. (1992). Management of psychopharmacologic agents in children and adolescents. Special Issue: Statewide Grand Rounds. *Psychiatric Quarterly 63(4).* 391-411.

C.H.A.D.D. -- Children with Attention Deficit Disorders (1996). *Attention Deficit Disorders: A Guide for Teachers. Children with Attention Deficit Disorders,* 499 N.W. 70th Avenue, Suite 308, Plantation, FL 33317; Phone: (305) 587-3700.

Crook, W.G. (1991). *Help for the hyperactive child.* Jackson. TN: Professional Books.

Dawson, M.M. (1995). Best practices in planning interventions for students with attention disorders. In A. Thomas & J. Grimes (Eds.), Best practices in school psychology-III. Washington, DC: National Association of School Psychologists.

DeMers, S. (1994). Legal and ethical issues in school psychologists' participation in psychopharmacological interventions with children. *School Psychology Quarterly, 9(1), 41-52.*

Division for Learning Disabilities (1996). *The DLD Times* (newsletter published by this Division of the Council for Exceptional Children), 1920 Association Drive, Reston, VA 22091-1589.

Division for Learning Disabilities of The Council for Exceptional Children (1996). *Inclusion: What Does It Mean for Students with Learning Disabilities?* Division for Learning Disabilities, 1920 Association Drive, Reston, VA 22091-1589; Phone: (703) 620-3660; Fax: (703) 264-9494.

DuPaul, G.J., & Stoner, G. (1994). *ADHD in the schools: Assessment and intervention strategies.* New York: Guilford Pub.

Gordon, S.B., & Asher, M.J. (1994). *Meeting the ADD challenge: A practical guide for teachers.* Champaign, IL: Research Press.

Krener, P., & Mancina, R. (1994). Informed consent or informed coercion? Decision-making in pediatric psychopharmacology. *Journal of Child & Adolescent Psychopharmacology,* 4(3), 183-200.

Lerner, J.W. (1995). *Attention deficit disorders: Assessment and teaching.* Pacific Grove, CA: Brooks/Cole.

NAMI (National Alliance for the Mentally Ill) (1996). Attention Deficit Hyperactiviy Disorder in Children. *NAMI,* 200 N. Globe Road, Suite 105, Arlington, VA 22203-3754; (800) 950-NAMI.

National Center for Learning Disabilities (1996). *General information packet on learning disabilities.* Contact: 381 Park Avenue South, Suite 1420, New York, NY 10016; Phone: (212) 545-7510.

National Center For Learning Disabilities (1995). *Information Packet on Attention Deficit-Hyperactivity Disorder (ADD/ADHD).* Contact: 381 Park Avenue South, Suite 1420, New York, NY 10016; Phone: (212) 545-7510.

Popper, C., & Zimnitzky, B. (1994). Child and adolescent psychopharmacology update: October 1992-December 1993. *Journal of Child and Adolescent Psychopharmacology* 4(1), 9-29.

Reid, R., Maag, J.W., Vasa, S.F. (1993). Attention deficit hyperactivity disorder as a disability category: A critique. *Exceptional Children, 60,* 198-214.

Research and Training Center on Family Support (1990). Attention Deficit Hyperactivity Disorder. Research and Training Center on Family Support and Children's Mental Health, Portland State University, P.O. Box 751, Portland, Oregon 97207-0751; Phone: (503) 725-4040.

Reif, S.F. (1993). *How to reach and teach ADD/ADHD children. Practical techniques, strategies, and interventions for helping children with attention problems and hyperactivity.* Reston, VA: Council for Exceptional Children.

Simeon, J. & Ferguson, H.B.(Eds.) (1990). Treatment strategies in child and adolescent psychiatry. *Child and Adolescent Psychopharmacology.* (pp. 133-150). New York: Plenum Press.

* Also see references in the various articles included in this packet.

Silver, L.B. (1995). Attention Deficit-Hyperactivity Disorder and Learning Disabilities- Booklet for the Classroom Teacher. *Ciba-Ge.gy Corporation*, Pharmaceuticals Division, Summit, New Jersey 07901.

UCLA School Mental Health Project/Center for Mental Health in Schools (1998). Introductory Packet on Learning Problems and Learning Disabilities. School Mental Health Project; Dept. of Psychology/UCLA; Los Angeles, CA, 90095-1563; Phone: 310-825- 3634; FAX: 310-206-8716; http://smhp.psych.ucla.edu

Whalen, C.K. (1989). Attention deficit and hyperactivity disorders. In T.H. Ollendick & M. Hersen (Eds.), *Handbook of child psychopathology* (2nd ed.). New York: Plenum.

Whalen, C.K. & Henker, B. (1997). Stimulant pharmacotherapy for attention-deficit/hyperactivity disorders: An analysis of progress, problems, and prospects. In S. Fisher & R.P. Greenberg (Eds.), *From placebo to panacea: Putting psychiatric drugs to the test: New York: Wiley.*

Zill, N. & Schoenborn, C.A. (1990). Developmental, Learning, and Emotional Problems. Vital and Health Statistics of the National Center for Health Statistics / U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, National Center for Health Statistics, 6525 Belcrest Road, Hyattsville, MD 20782; Phone: (301) 436-8500.

Books for Children and Teens

Galvin, M. (1988). *Otto Learns about his Medication.* New York: Magination Press. (for young children)

Gehret, J. (1991). *A child's guide to paying attention.* Fairport, NY: Verbal Images Press. (for students)

Gordon, M. (1991). *Jumpin Johnny, Get Back to Work! A Child's Guide to ADHD/Hyperactivity.* DeWitt, New York: GSI Publications. (for ages 7-12)

Meyer, D., Vadasy, P. & Fewell, R. (1985). *Living with a Brother or Sister with Special Needs: A Book for Sibs.* Seattle, WA: University of Washington Press.

Moss, D. (1989). *Shelly the Hyperactive Turtle.* Rockville, MD: Woodbine House. (for young children)

Nadeau, K., and Dixon, E. (1993). *Learning to Slow Down and Pay Attention.* Annandale, VA: Chesapeake Psychological Publications.

Neuville, M.B. (1995). *Sometimes I get all scribbly.* (Rev. ed.) Austin, TX: Pro-ed.

Parker, R. (1992). *Making the Grade: An Adolescent's Struggle with ADD.* Plantation, FL: Impact.

Quinn, P., & Stern, J. (1991). *Putting on the Breaks: Young People's Guide to Understanding Attention Deficit Hyperactivity Disorder.* New York: Magination Press. (for ages 8-12).

Thompson, M. (1992). *My Brother Mathew.* Rockville, MD: Woodbine House.

Books for Parents

Anderson, W., Chitwood, S., & Hayden, D. (1990). *Negotiating the Special Education Maze: A guide for Parents and Teachers.* 2nd ed. Rockville, MD: Woodbine House.

Bain, L. (1991). *A Parent's Guide to Attention Deficit Disorders.* New York: Dell Publishing.

Child Psychopharmacy Center, University of Wisconsin. (1990). *Stimulants and Hyperactive Children.* Madison, WI: Author. (order by calling 608-263-6171)

Copeland, E., & Love, V. (1991). *Attention Please! A Comprehensive Guide for Successfully Parenting Children with Attention Disorders and Hyperactivity.* Atlanta, GA: SPI Press.

Fowler, M. (1990). *Maybe You Know My Kid: A Parent's Guide to Identifying, Understanding and Helping Your Child with ADHD.* New York: Birch Lane Press.

Goldstein, S., & Goldstein, M. (1992). *Hyperactivity: Why Won't My Child Pay Attention?* New York: Wiley.

Goldstein, S., & Goldstein, M. (1992). *Teacher's Guide: Attention Deficit Hyperactivity Disorder.* Salt Lake City, Utah: Neurology Learning and Behavior.

Goldstein, S., & Goldstein, M. (1986). *Parent's Guide: Attention Deficit Hyperactivity Disorder.* Salt Lake City, Utah: Neurology Learning and Behavior.

Greenberg, G. , Horn, S., & Wade, F. (1991). *Attention Deficit Hyperactivity Disorder: Questions & Answers for Parents.* Champaign, IL: Research Press.

Ingersoll, B., & Goldstein, S. (1993). *Attention Deficit Disorder and Learning Disabilities: Realities, Myths, and Controversial Treatments.* New York: Doubleday.

Johnson, D.D. (1992). *I can't sit still: Educating and affirming inattentive and hyperactive children. Suggestions for parents, teachers, and other care providers of children to age 10.* Santa Cruz, CA: ETR.

Patlin, D.M. (1993). *The parents' hyperactivity handbook: Helping the fidgety child.* New York: Plenum.

Taylor, J. *(1993). The Attention Deficit/Hyperactive Student at School: A Survival Guide for Teachers and Counselors.* Salem, OR: Sun Media.

Wilson, N. (1992). *Optimizing Special Education: How Parents Can Make a Difference.* New York: Insight Books.

Windell, J. (1991). *Discipline: A Sourcebook of 50 Failsafe Techniques for Parents.* New York: Collier Books.

* Also see references in the various articles included in this packet.

The Chesapeake Institute publishes documents based on federally funded research syntheses. The following are examples:

- Attention Deficit Disorder: Adding up the Facts (ED370334)
- Attention Deficit Disorder: Beyond the Myth (ED370335)
- Attention Deficit Disorder: What Teachers Should Know (ED370336)
- Attention Deficit Disorder: What Parents Should Know (ED370337)
- Where Do I Turn: A Resource Directory of Materials About Attention Deficit Disorder (ED37033)
- Teaching Strategies: Education of Children with Attention Deficit Disorder (ED370332)
- Executive Summaries of Research Syntheses: Promising Practices on the Education of Children with ADD (ED363083)

Contact: 1000 Thomas Jefferson St., NW., Suite 400, Washington, DC 20007
Ph: 202/944-5300 or 1/888/457-1551 Web: www.air-dc.org/cecp/cece.html

Examples of Videos Available from the A.D.D. Warehouse:

- *1-2-3 MAGIC: Training Your Preschooler & Preteen to Do What You Want Then to Do!*
- *ADHD/ADD Video Resource for Schools with Attention without Tension*
- Educating Inattentive Children: A Guide for the Classroom; How to Use Time-Out Effectively
- Understanding A.D.D.
- Understanding Attention Disorders: Preschool Through Adulthood
- The Video SOS! Help for Parents
- Why Won't My Child Pay Attention

Contact: A.D.D. Warehouse, 300 NW 70th Ave., Suite 102, Plantation, FL 33317
Ph: 800/233-9273

* Also see references in the various articles included in this packet.

Agencies and Online Resources Relevant to Attention-Related Problems and Disorders

The American Academy of Child & Adolescent Psychiatry

The American Academy of Child & Adolescent Psychiatry represents over 5,600 child and adolescent psychiatrists - physicians with at least five years of additional training beyond medical school in general and child and adolescent psychiatry. AACAP members actively research, diagnose, and treat psychiatric disorders affecting children and adolescents and their families, and the Academy is dedicated to supporting this work through a variety of programs including government liaison, national public information and continuing medical education.

Contact: 3615 Wisconsin Avenue, N.W., Washington, DC 20016-3007
Ph.1-202-966-7300 / fax 1-202-966-2891 E-mail: communications@aacap.org
Web: http://www.aacap.org/

The Attention Deficit Information Network, Inc. (AD-IN)

The Attention Deficit Information Network, Inc. is a non profit volunteer organization that offers support and information to families of children with ADD, adults with ADD and professionals through a network of AD-IN chapters. AD-IN was founded in 1988 by several parent support group leaders on the premise of parents helping parents deal with their children with ADD. This network has parent and adult support group chapters throughout the country. AD-IN is a community resource for information on training programs and speakers for those who work with individuals with ADD. This organization also presents conferences and workshops for parents and professionals on current issues, research and treatments for ADD and makes an annual, post-secondary scholarship award. Funding for the activities is derived from conference proceeds, grants from foundations and corporations, donations and contributions.

Contact: 475 Hillside Avenue, Needham, MA 02194 Ph: 781-455-9895
Fax. 781-444-5466 Web: www.addinfonetwork.com Email: adin@gis.net

Children and Adults with Attention Deficit Disorders (CHADD)

CH.A.D.D. has four primary objectives: (1) to maintain a support network for parents who have children with ADD and adults with ADD; (2) to provide a forum for continuing education of parents, professionals, and adults with ADD about the disability; (3) to be a community resource for information about ADD; and (4) to make the best educational experiences available to children with ADD so that their specific difficulties will be recognized and appropriately managed within educational settings. Their website has fact sheets, documents, a newsletter covering topics related to ADD, books to order, and local chapters around the nation.

Contact: 8181 Professional Place, Suite 201, Landover, MD 20785
Phone: 301-306-7070 http://www.chadd.org/

The National Attention Deficit Disorder Association

The National Attention Deficit Disorder Association is a growing non-profit organization that is mostly staffed by volunteers. The organization is built around the needs of people with ADD & ADHD and those who love, live, teach, and counsel them. Their foundation is based on their service to members , public and professional community.

Contact: 1070 Rosewood, Suite A, Ann Arbor, MI 48104 Ph: 313/769-6690 or 800/487-2282 FAX: 440-350-0223 E-MAIL: NatlADDA@aol.com
Website: http://www.add.org/

National Information Center for Children and Youth with Disabilities (NICHCY)

NICHCY is the national information and referral center that provides information on disabilities and disability-related issues for families, educators, and other professionals. Our special focus is children and youth(birth to age 22). It has a Spanish translation to help facilitate one's understanding, and makes referrels to specific disabilities, early intervention, family issues to education rights and much more.

Contact: P.O. Box 1492, Washington, DC 20013
Phone: 1-800-999-5599 Fax: (703) 893-1741
E-mail: nichcy@capcon.net.internet Website: http://www.nichcy.org/

Attention Problems: Intervention and Resource Consultation Cadre List

Professionals across the country volunteer to network with others to share what they know. Some cadre members run programs, many work directly with youngsters in a variety of settings and focus on a wide range of psychosocial problems. Others are ready to share their expertise on policy, funding, and major system concerns. The group encompasses professionals working in schools, agencies, community organizations, resource centers, clinics and health centers, teaching hospitals, universities, and so forth.

People ask how we screen cadre members. We don't! It's not our role to endorse anyone. We think it's wonderful that so many professionals want to help their colleagues, and our role is to facilitate the networking. If you are willing to offer informal consultation at no charge to colleagues trying to improve systems, programs, and services for addressing barriers to learning, let us know. Our list is growing each day; the following are those currently on file related to this topic. Note: the list is alphabetized by Region and State as an aid in finding a nearby resource.

Updated 8/13/01

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IV. Interventions for Attention Problems

A. Accommodations to Reduce Attention Problems

- Best Practices in Planning Instruction for Students with Attention Disorders
- Suggested Classroom Accommodations for Specific Behaviors

B. Behavior Management and Self Instruction

- Article from LD Forum
- Teaching Children with Attention Deficit/ Hyperactivity Disorder
- Coaching Teenagers with Attention Disorders

C. Empirically Supported Treatment

D. Medication

A. Intervention:

Accommodations to Reduce Attention Problems

As one of the identified disabilities covered by Section 504 of the Social Security Rehabilitation Act referred to previously, accommodations for Attention Deficit Hyperactivity Disorder are mandated by law. A good description of such accommodations is included in the excerpts from the following reference article:

• Best Practices in Planning Interventions for Students with Attention Disorders. by Margaret M. Dawson. In *Best Practices in School Psychology* (1995) pp 987-998. A. Thomas & J. Grimes (Eds.) Washington, DC: The National Association of School Psychologists.

...Environmental modifications involve changing aspects of the student's environment to address learning or behavior problems. Examples might include seating the student near the teacher for whole-group instruction or allowing the student to come directly in from recess without having to wait in line. Behavioral modification consists primarily of developing incentive systems to increase the likelihood that the student will engage in appropriate classroom behaviors. These interventions are most effectively developed using a problem-solving format. This approach can be used in a one-to-one consultation between school psychologist and teacher or applied in a small group setting. Many school psychologists serve on teacher assistance teams that function in this way. Such an approach generally follows the following steps: (a) define target behaviors specifically; (b) brainstorm possible solutions; (c) select an appropriate intervention; (d) implement the intervention; and (e) evaluate the results. The chapter on behavioral consultation elsewhere in this volume provides further information about this problem-solving model.

This approach can be used with students whose attention problems range from mild to severe, whose needs can be met in the regular classroom with minimal modifications, or who may require something more formal, such as a special education plan or a Section 504 plan. Where something more formal is desired, the outcome of such problem solving may be a written plan that delineates the problem behaviors, the appropriate interventions, or accommodations, and the person(s) responsible for implementing the interventions. Figure 1 provides an example of such a plan...

FIGURE 1. Sample Section 504 plan.

Area of Concern	Intervention/Accommodation
1. Written expression	1. Provide assistance with prewriting activities (brainstorming/concept mapping) 2. Allow use of computer or dictation for longer assignments 3. Provide assistance with proofing, preparing final draft
2. Long assignments	1. Break down long assignments into shorter ones 2. Help student develop time lines for longer assignments 3. Reduce writing requirements by reducing length and allowing alternative methods of demonstrating learning
3. Following directions	1. Provide written as well as oral directions 2. Repeat group directions individually 3. Have student repeat directions to show understanding 4. Break down longer directions into smaller steps 5. Build in incentives for following directions and for asking for help
4. Distractibility	1. Preferential seating during whole class work 2. Nonverbal signal from teacher to attend 3. Quiet place to work during seatwork 4. Cue for transitions 5. Incentives for timely work completion

* * *

Environmental Modifications

With appropriate modifications and accommodations, the educational needs of a majority of students with attention disorders can be met solely or primarily within a regular classroom environment. And while behavior modification strategies can be very effective in improving classroom performance and behavior, altering environmental variables and making task modifications are an important adjunct.

Research on task modifications for students with attention disorders has been conducted primarily by Zentall and her colleagues at Purdue University. Some of their findings that may be relevant to classroom settings are:

1. Stories presented at a faster-than-normal rate of speech resulted in improved listening comprehension and decreased activity level (Shroyer & Zentall, 1986).

2. Using color to highlight salient information increased accuracy and decreased activity level for students with ADHD (Zentall, 1985, 1986).

3. Tasks with a high degree of structure decreased activity level, compared to low-structured, more open-ended tasks (Zentall & Leib, 1985).

4. Active response (i.e., requiring a motor response) resulted in improved performance, compared to more passive response conditions (Zentall & Meyer, 1987).

5. Providing brief, global instructions, instead of lengthy, detailed instructions, produced shorter task completion time and fewer requests for cues (Zentall & Gohs, 1984).

6. Math and reading tasks presented in a low-noise environment created better performance and decreased activity levels than did a high-noise environment (Zentall & Shaw, 1980).

Effective classroom modifications include seating students preferentially, calling on the student frequently during class discussions, writing start and stop times for written work completion, using a kitchen timer as a motivator, and providing the student with a daily checklist of assignments to help organize work assignments. Children with attention disorders, particularly if they have concomitant executive skill deficits, may need help getting started on assignments. This can be done by walking them through the first few items or talking to them about the assignment to help them get oriented. They often do significantly better when tasks are modified to respond to their deficit areas, including presentation of briefer tasks, building in breaks, allowing the opportunity to stand up and move around, and, as noted above, providing high within-task stimulation.

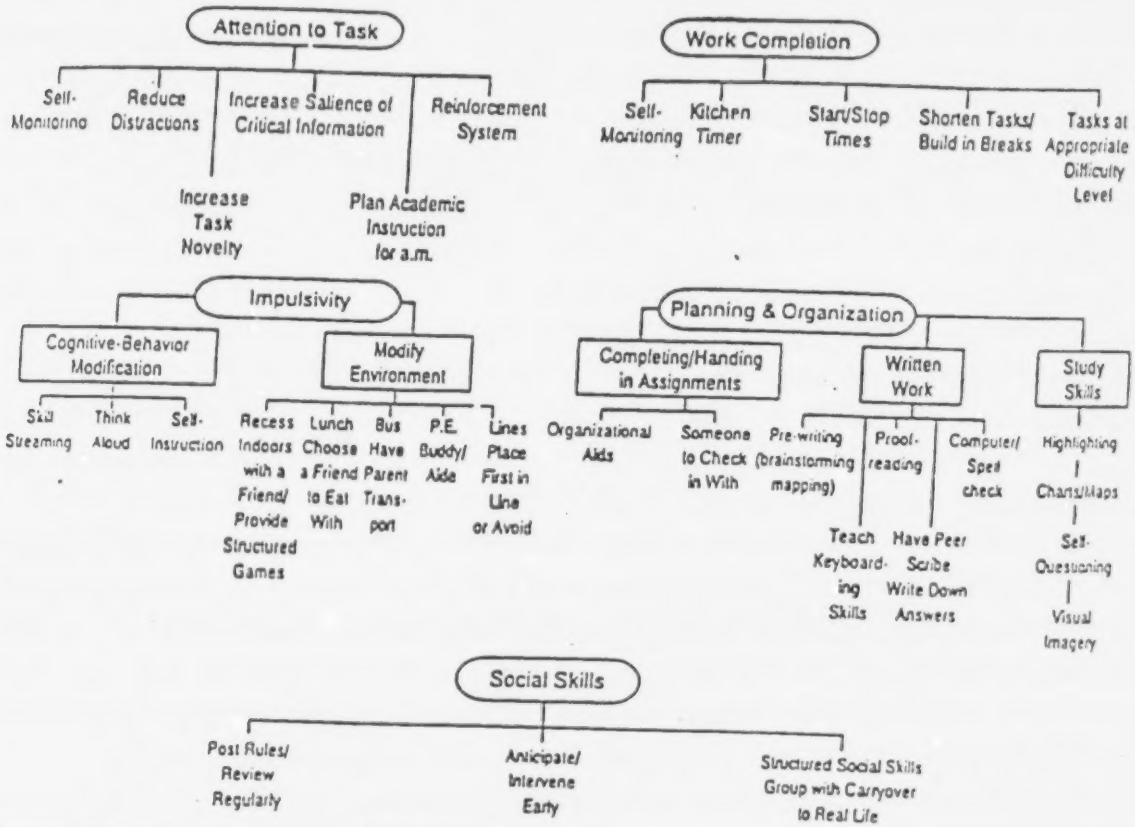
Other modifications for youngsters with ADHD address the fact that they tend to do best when they have frequent opportunities to respond and receive immediate feedback. Peer tutoring and cooperative learning approaches both build in greater opportunities for individual response and immediate feedback than do more traditional classroom structures, such as lectures and individual seatwork activities. Computers also offer great promise for youngsters with ADHD, because levels of response and feedback are increased and because computer software can be novel, entertaining, and interactive.

Modifications that address difficulty in written production include reducing writing requirements, allowing students to dictate or tape record assignments, and allowing for alternative means of demonstrating knowledge or learning, such as projects and oral reports. Providing access to computers to learn word processing and to complete written assignments is an essential modification for many youngsters with ADHD.

Still other modifications address the fact that youngsters with ADHD do more poorly with tasks they find tedious, difficult, or uninteresting. These modifications include reducing repetitive seatwork and making tasks and assignments as appealing as possible. Youngsters with ADHD respond very well to activities with a game format or to lessons that are presented as problems to be solved, particularly if they have real-life applications. Project-oriented learning is ideally suited to the learning style of many youngsters. Others respond to the opportunity to design their own assignments. Independent learning projects can be particularly effective at the secondary level. Allowing students to negotiate their own learning contract can increase motivation and enhance performance -- another modification that may be especially effective at the secondary level.

Giving these students choices -- in terms of *what* assignments they will do, *how* they will do them, *in what order, where,* and with *whom* they will complete the work -- can have a dramatic impact on productivity and task completion. And pairing youngsters with ADHD with other students allows them to use complementary strengths. A youngster with ADHD may have very creative ideas but have trouble putting them down on paper, while another student may be skilled at organizing work and writing but lack imagination; by pairing the two, both can benefit -- and learn -- from the strengths of the other.

Figure 4. School-based interventions for children with attentional problems.



While we generally think about classroom and task modifications in terms of the learning weaknesses of youngsters with attention disorders, the strengths these students have must not be neglected. It is critically important for those who work with these students to identify their skills, aptitudes, and talents, to find ways to encourage their development, and to ensure that these students are recognized for their accomplishments. Youngsters with attention disorders tend to receive negative feedback in greater quantities than their classmates. Special efforts must counteract these threats to self-esteem by finding areas where these students can shine.

This is a brief summary of the kinds of instructional and task modifications that are employed frequently with youngsters with attention disorders. Figure 4 contains examples of other modifications that may be appropriate.

Support Services

While the interventions described above may be sufficient for most youngsters with attention disorders, others will require additional support services to meet their needs. Students with attention disorders may qualify for these services either through

Section 504 of the Rehabilitation Act (which protects students who have a physical or mental impairment "that substantially limits one or more major life activities," such as learning) or through the Individuals with Disabilities Education Act, IDEA, through the disability category Other Health Impaired. Under Section 504, school districts develop an accommodation plan that defines what services are needed and how they will be provided. Under IDEA, these services are specified in the student's Individual Education Plan (IEP).

While the need for special education or other services is often determined on the basis of a discrepancy between scores on measures of ability and achievement, with children with attention disorders, the central issue is more often a problem with *daily classroom performance,* and it is on this basis that the need for services should be determined.

Support services, provided either through Section 504 or IDEA, may include any of the following:

1. A monitor with whom the student can check in one or more times a day. This approach often is employed at the secondary level, where students change classes and have many teachers, and may, as a result, have difficulty keeping track of assignments, materials, and possessions. A monitor helps ensure that the student hands in homework assignments, is prepared for class, and has the necessary materials for class participation and homework completion. Monitors can also help manage home-school report cards when they are used.

2. Supervised study halls, to ensure that students use this time wisely and can receive assistance with assignments as needed.

3. Help with study and organizational skills, either through tutoring, in a supervised study hall, or through participation in study skills courses. This may include assistance with setting up and keeping an assignment notebook, using memory aids, planning long-term assignments, monitoring progress on long-term assignments, and learning note-taking skills, time-management skills, and study and test-taking skills.

4. A classroom aide to help make task modifications, increase student time on task, intervene in response to disruptive behavior, and administer reinforcement systems.

5. Remedial instruction in areas of academic skill deficit.

6. Counseling services to address social emotional needs, such as participation in social skills groups.

While these are all direct services, students with attention disorders are also entitled to indirect services, such as consultation for the classroom teacher from a special education teacher, counselor, or school psychologist.

Other Roles for School Psychologists

The school psychologist can play a critical role in designing appropriate interventions for students with attention disorders. Other roles that are well suited to the skills and training of school psychologists include:

1. Acting as a liaison among the home, the school, and other service providers, such as mental health workers and physicians.

2. Case managing, including follow-up to assess intervention effectiveness, data collection to monitor medication effects, and

help with transitions to the next grade level, school, and the like.

3. Providing training and information to parents concerning the management of attention disorders in the home.

4. Providing in-service training for teachers.

5. Becoming involved with advocacy groups for parents of children with attention disorders. Besides becoming a valuable resource to such groups, this can have good public relations benefits for the school psychologist and the school district where he or she is employed.

• • •

References

American Psychiatric Association. (1980). *Diagnostic and statistical manual of mental disorders* (3rd ed., rev.). Washington, DC: Author

Barkley, R. A. (1987). *Defiant children: A clinician's manual for parent training.* New York: Guilford Press.

Barkley, R. A. (1990). *Attention-deficit hyperactivity disorder: A handoook for diagnosis and treatment.* New York: Guilford Press.

Barkley, R. A. (1993, April). Eight principles to guide ADHD children. *The ADHD Report, p. 1.*

Camp, B., & Bash, M. (1981). *Think aloud.* Champaign, IL: Research Press.

Deshler, D. D., & Schumaker, J. B. (1988). An instructional model for teaching students how to learn. In J. L. Graden, J. E. Zins, & Michael E. Curtis (Eds.), *Alternative educational delivery systems: Enhancing instructional options for all students.* Washington, DC: National Association of School Psychologists.

Fiore, T. A., Becker, E. A., & Nero, R. C. (1993). *Research synthesis on educational interventions for students with ADD.* Research Triangle Park, NC: Research Triangle Institute.

Frick, P. J., & Lahey, B. B. (1991). The nature and charactenstics of attention-deficit hyperactivity disorder. *School Psychology Review, 20,* 163-173.

Gaskins, I., & Elliot, T. (1991). *Implementing cognitive strategy instruction across the school.* Cambridge, MA: Brookline Books.

Goldstein, A. P., Spra'kin, R. P., Gershaw, N. J., & Klein, P. (1980). *Skillstreaming the adolescent.* Champaign, IL: Research Press.

Gordon, M., Thomason, D., Cooper, S., & Ivers, C. L. (1991). Non-medical treatment of ADHD/hyperactivity: The Attention Training System. *Journal of School Psychology, 29,* 151-159.

Hallahan, D. P., Lloyd, J., Kosiewicz, M. M., Kauffman, J. M., & Graves, A. W. (1979). Self-monitoring of attention as a treatment for a learning disabled boy's off-task behavior. *Learning Disability Quarterly, 2,* 24-32.

Lahey, B. B., Pelham, W. E., Schaughency, E. A., Atkins, M. S., Murphy, A., Hynd, G. W., Russo, M., Hartdagen, S., & Lorys-Vernon, A. (1988). Dimensions and types of attention deficit disorder. *Journal of the American Academy of Child and Adolescent Psychiatry, 27,* 330-335.

Meichenbaum, D., & Goodman, J. (1971). Training impulsive children to talk to themselves: A means of developing self-control. *Abnormal Psychology, 77,* 115-126.

National Association of School Psychologists. (1992, May). Position Statement on Students with Attention Deficits. *Communique, 20,* 5.

Paniagua, F. A., Morrison, P. B., & Black, S. A. (1988). Clinical effects of correspondence training in the management of hyperactive children. *Behavioral and Residential Treatment, 3,* 19-40.

Robin, A. L., & Foster, S. L. (1989). *Negotiating parent-adolescent conflict: A behavioral family systems approach.* New York: Guilford Press.

Shroyer, C., & Zentall, S. S. (1986). Effects of rate, nonrelevant information, and repetition on the listening comprehension of hyperactive children. *Journal of Special Education, 20,* 231-239.

Wallace, G., & Kauffman, J. M. (1986). *Teaching children with learning and behavior problems.* Columbus, OH: Merrill.

Zentall, S. S. (1985). Stimulus-control factors in the search performance of hyperactive children. *Journal of Learning Disabilities, 18,* 480-485.

Zentall, S. S. (1986). Effects of color stimulation on the performance and activity of hyperactive and nonhyperactive children. *Journal of Educational Psychology, 78,* 159-165.

Zentall, S. S., & Gohs, D. E. (1984). Hyperactive and comparison children's response to detailed vs. global cues in communication tasks. *Learning Disabilities Quarterly, 7,* 77-87.

Zentall, S. S., & Leib, S. L. (1985). Structured tasks: Effects on activity and performance of hyperactive and comparison children. *Journal of Educational Psychology, 79,* 91-95.

Zentall, S. S., & Meyer, M. J. (1987). Self-regulation of stimulation for ADD-H children during reading a vigilance task performance. *Journal of Abnormal Child Psychology, 15,* 519-536.

Zentall, S. S., & Shaw, J. H. (1980). Effects of classroom noise on the performance and activity of second-grade hyperactive and control children. *Journal of Educational Psychology, 72,* 830-840.

ANNOTATED BIBLIOGRAPHY

Barkley, R. A. (1990). *Attention-deficit hyperactivity disorder: A handbook for diagnosis and treatment.* New York: Guilford Press.

This comprehensive volume addresses both diagnostic and treatment issues related to ADHD. It is perhaps the most comprehensive single volume addressing attention disorders and is highly recommended for any professional who work with students with ADHD. The book is divided into three sections, with Part 1 addressing the nature and diagnosis of ADHD, Part 2 addressing assessment issues, and Part 3 devoted to treatment issues. Part 3 includes chapters on counseling and training parents, educational placement and classroom management, social skills and peer relationship training, and medication therapy.

Fiore, T. A., Becker, E. A., & Nero, R. C. (1993). *Research synthesis on educational interventions for students with ADD.* Research Triangle Park, NC: Research Triangle Institute. This volume, prepared by one of the federally funded ADD Intervention Centers, contains a comprehensive summary of research on educational interventions for students with ADHD. Research is divided into seven topics: positive reinforcement, behavior reduction, response cost, cognitive-behavioral interventions, parent training, task/environmental stimulation, and biofeedback. For each topic area, the authors present a brief synopsis of research findings with suggestions for educators and areas for further study and a chart summarizing each research study reviewed. The rest of the volume consists of an annotated bibliography of the research studies.

Guevremont, D. C. (1992, Fall/Winter). The parents' role in helping the ADHD child with peer relationships. *CHADDER,* p. 17

This article, written for parents by an associate of Russell Barkley, outlines the social behaviors common to children with ADHD and then gives parents useful suggestions for improving social skills and enhancing their children's ability to make and keep friends. It describes a home reward program that is relatively easy to administer and goes on to suggest practical ways that parents can arrange for positive experiences with peers both at home and in the community. It concludes with suggestions for how parents may work with teaches to enhance social skills and positive peer interactions. It makes a useful handout that school psychologists can give to parents.

Teeter, P. K. (Guest Ed.). (1991). Mini-series: Attention-deficit hyperactivity disorders in children: Clinical and treatment issues. *School Psychology Review, 20,* 161-281.

This volume of *School Psychology Review* contains nine articles on a variety of topics associated with ADHD, written by the leading researchers in the field. In addition to articles on diagnosis and assessment, four articles address treatment issues. These include therapeutic effects of medication, classroom-based behavioral interventions, remediating social skills deficits, and training for parents of children with ADHD. Each of these articles provides a concise synopsis of current thinking and research as well as practical information the practicing school psychologist will find useful.

PRE-REFERRAL INTERVENTION STRATEGIES

ATTENTION DEFICIT DISORDERS

• SUGGESTED CLASSROOM ACCOMMODATIONS FOR SPECIFIC BEHAVIORS

WHEN YOU SEE THIS BEHAVIOR	TRY THIS ACCOMMODATION
Difficulty following a plan (has high aspirations, but lacks follow-through); sets out to get straight A's, ends up with F's. (sets unrealistic goals).	• Assist student in setting long range goals; break the goal into realistic parts. • Use a questioning strategy with the student. Ask "What do you need to be able to do this?" Keep asking that question until the student has reached an obtainable goal. • Have student set clear timelines for what he needs to do to accomplish each step. (monitor student's progress frequently).
Difficulty sequencing and completing steps to accomplish specific tasks, e.g., writing a book report, term paper, organizing paragraphs, division problem, etc.	• Break up task into workable and obtainable steps. • Provide examples and specific steps to accomplish task.
Shifting from one uncompleted activity to another without closure.	• Define the requirements of a completed activity. For example, "Your math is finished when all six problems are complete and correct; do not begin on the next task until it is finished."
Difficulty following through on instructions from others.	• Gain student's attention before giving directions. Use alerting cues. • Accompany oral directions with written directions. • Give one direction at a time. Quietly repeat direction to the student after they have been given to the rest of the class. Check for understanding by having the student repeat the directions. • Place general methods of operation and expectations on charts displayed around the room and/or on sheets to be included in student's notebook.
Difficulty prioritizing from most to least important.	• Prioritize assignments and activities • Provide a model to help students. Post the model and refer to it often.
Difficulty sustaining effort and accuracy over time.	• Reduce assignment length and strive for quality rather than quantity. • Increase the frequency of positive reinforcements. Catch the student doing it right and let him or her know it.
Difficulty completing assignments	• List and/or post (and say) all steps necessary to complete each assignment. • Reduce the assignment into manageable sections with specific due dates. • Make frequent checks for work/assignment completion. • Arrange for the student to have a "study buddy" with phone number in each subject area.

Difficulty with any task that requires memory	• Combine seeing, saying, writing, and doing; student may need to subvocalize to remember. • Teach memory techniques as a study strategy (e.g. mnemonics, visualization, oral rehearsal, numerous repetitions).
Difficulty with test taking	• Allow extra time for testing; teach test-taking skills and strategies; and allow student to be tested orally. • Use clear, readable and uncluttered test forms. Use test format that the student is most comfortable with. Allow sample spaces for student response. Consider having lined answer spaces for essay or short answer tests.
Confusion from non-verbal cues (misreads body language, etc.)	• Directly teach (tell the student) what non-verbal cues mean. • Model and have student practice reading cues in a safe setting.
Confusion from written material; difficulty finding the main idea of a paragraph; attributes greater importance to minor details	• Provide student with copy of reading material with main ideas underlined or highlighted. • Provide an outline of important points from reading material. • Teach outlining, main-idea/details,concepts • Provide tape of text/chapter.
Confusion from spoken material lectures and AV material. Difficulty finding main idea from presentation, attributes greater importance to minor details	• Provide student with a copy of presentation notes. • Allow peers to share carbon-copy notes from presentation. • Have student compare own notes with copy of peer's notes. • Provide framed outlines of presentations, introducing visual and auditory cues to important information. • Encourage use of tape recorder. • Teach and emphasize key words. "The following…", "the most important point…", etc.
Difficulty sustaining attention to tasks or other activities. Easily distracted by extraneous stimuli	• Reward attention. Break up activities into small units. • Reward for timely accomplishments. • Use physical proximity and touch. Use earphones and/or study carrels, quiet place, or preferential seating.
Frequent messiness or sloppiness	• Teach organization skills. Be sure student has daily, weekly, and/or monthly assignment sheets; list of materials needed daily; and consistent format for papers. Have a consistent way for students to turn in and receive back papers; reduce distractions. • Give reward points for notebook checks and proper paper format. • Provide clear copies of worksheets and handouts and consistent format for worksheets. Establish a daily routine, provide models for what you want the student to do. • Arrange for a peer who will help him with organization. • Assist student to keep materials in a specific place, e.g. pencils and pens in pouch. • Be willing to repeat expectations.
Poor handwriting, (often mixing cursive with manuscript and capitals with lower-case letters).	• Allow for a scribe and grade for content, not handwriting. • Allow for use of a computer or typewriter. • Consider alternative methods for student responses, e.g. tape recorder, oral reports, etc. • Don't penalize student for mixing cursive and manuscript. • Accept any method of production.

Difficulty with fluency in handwriting e.g. good letter/word production but very slow and laborious.	• Allow for shorter assignments (quality vs. quantity). • Allow alternate method of production (computer, scribe, oral presentation, etc.)
Poorly developed study skills	• Teach study skills specific to the subject areas – organization (e.g. assignment calendar), textbook reading, notetaking (finding main ideas/detail, mapping, outlining, skimming, summarizing).
Poor self-monitoring, e.g. careless errors in arithmetic, spelling, reading	• Teach specific methods of self-monitoring, e.g. "stop-look-listen". • Have student proofread finished work when it is cold.
Low fluency or production of written material (takes hours on a 10 minute assignment)	• Allow for alternative method for completing assignment (oral presentation, taped report, visual presentation graphs maps, pictures, etc., with reduced written requirements). • Allow for alternative method of writing, e.g. typewriter, computer, cursive or printing, or a scribe.
Apparent inattention (underactive, daydreaming, "not there".	• Get student's attention before giving directions. Tell the student how to pay attention; "look at me when I talk". Watch my eyes when I speak". Ask student to repeat directions. • Attempt to actively involve student in lesson, e.g., cooperative learning.
Difficulty participating in class without being interruptive; difficulty working quietly.	• Seat student in close proximity to the teacher. • Reward appropriate behavior; catch student "being good". • Use study carrel if appropriate.
Inappropriate seeking of attention. Clowns around, exhibits loud, excessive or exaggerated movements as attention seeking behavior, interrupts, butts into other children's activities, needles others.	• Show student (model) how to gain other's attention appropriately. • Catch the student when appropriate and reinforce.
Frequent, excessive talking.	• Teach student hand signals and use to tell student when and when not to talk. • Make sure student is called when it is appropriate and reinforce listening.
Difficulty making transitions (from activity to activity or class to class); takes an excessive amount of time to find pencil; gives up; refuses to leave previous task; appears agitated during change.	• Program child for transitions. Give advance warning when a transition is going to take place. "Now we are completing the worksheet; next we will…", and the expectations for the transition, "and you will need…". • Specifically assay and display lists of materials needed until a routine is possible. List steps necessary to complete each assignment. • Have specific locations for all materials, e.g., pencil pouches, tabs in notebooks, etc. • Arrange for an organized helper (peer).
Difficulty remaining seated or in a particular position when required to.	• Give student frequent opportunities to get up and move around. Allow space for movement.

Frequent fidgeting with hands. feet or objects, squirming in seat.	• Break tasks down to small increments and give frequent positive reinforcement for accomplishments (this type of behavior is often due to frustration). • Allow alternative movement when possible.
Inappropriate responses in class often blurted out; answers given to questions before they have been completed.	• Seat student in close proximity to teacher so that visual and physical monitoring of student behavior can be done by the teacher. • State behavior that you do want. Tell the student how you expect him to behave.
Agitation under pressure and competition (academic or athletic).	• Stress effort and enjoyment for self, rather than competition with others. • Minimize timed activities; structure class for team effort and cooperation.
Inappropriate behaviors in a team or large group sport or athletic activity. Difficulty waiting for turn in games or group situations.	• Give the student a responsible job (e.g. team captain, care and distribution of the balls, score keeping, etc.); consider leadership role. • Have the student in close proximity to teacher.
Frequent involvement with physically dangerous activities without considering possible consequences.	• Anticipate dangerous situations and plan for in advance. • Stress stop-look-listen. • Pair with responsible peer. Rotate responsible students so that they don't wear out.
Poor adult interactions. Defies authority, sucks up, hangs on.	• Provide positive attention. • Talk with student individually about the inappropriate behavior. "What you are doing is...". "A better way of getting what you want is...".
Frequent self-putdowns, poor personal care and posture, negative comments about self and others, poor self-esteem.	• Structure for success. • Train student for self-monitoring, reinforce improvements, teach self questioning strategies. (What am I doing? How is that going to effect others?) • Allow opportunities for the student to show his strength. • Give a positive recognition.
Difficulty using unstructured time, recess, hallways, lunchroom, locker room, library, assembly.	• Provide student with a definite purpose during unstructured activities. "The purpose of going to the library is to check out...". • Encourage group games and participation, e.g. organized school clubs and activities.
Losing things necessary for task or activities at school or at home, e.g. pencils, books, assignments before, during and after completion of a given task.	• Help student organize. Frequently monitor notebook and dividers, pencil pouch, locker, book bag, desks. • Provide positive reinforcement for good organization. • Provide student with a list of needed materials and their locations.
Poor use of time, e.g., sitting, staring off into space, doodling, not working on task at hand.	• Teach reminder cues, e.g., a gentle touch on the shoulder, hand signals, etc. • Tell the student your expectations of what paying attention look like. "You look like you are paying attention when...". • Give the student a time limit for a small unit of work with positive reinforcement for accurate completion. • Use of contract, timer, etc., for self-monitoring.

B. Intervention:

Behavior Management & Self-Instruction

•Article from LD Forum, Vol 20 (4), Summer, 1995. This article by J. Berger summarizes a popular approach for working with youngsters with attention problems in classrooms. The following excerpt from her article captures the idea of this approach.

...Cognitive behavior modification (CBM) is a strategy that has proved effective for students who need to develop self control. Meichenbaum pioneered the work on CBM in the late 1960s and early 1970s and, in conjunction with Goodman (1971), developed a self-instruction training program. CBM stresses the importance of language in cognitive and behavioral development. Quite simply, Meichenbaum believed that people who talk themselves through situations are better able to control their behavior. Those who don't have this ability can learn it. The program that Meichenbaum developed was based on the idea that inner speech is an important part of the thinking process, and that children can use inner speech in a self-guiding fashion. In CBM programs, children are taught to think before they act and to produce self-instruction. This strategy can be used by teachers and children to focus on both behaviors and academic tasks. They STOP! They THINK! Then they ACT...

...To self-instruct, the learner progresses through a series of steps that moves from external overt (outloud) controls to internal covert (silent) controls. These steps are presented in Table 1. Self-instruction training steps are organized into three primary stages: self-talk modeling by the teacher, self-talk steps imitated by the student, and independent use of self-talk by the student...

USING SELF-INSTRUCTION

Self-instruction can be an effective technique to use in the classroom. A teacher should work with children individually or in small groups and begin with simple concrete tasks...."

Table 1. Steps for Teaching Self-Instruction

1. Cognitive Modeling	The teacher models a task while talking outloud.
2. Overt External Guidance	The teacher talks outloud while the students do what the teacher says.
3. Overt Self-Guidance	The students perform the task while talking out loud.
4. Modeled Faded Overt Self-Guidance	The teacher models the behavior while whispering the instructions.
5. Faded Overt Self-Guidance	The students whisper instructions to themselves while performing the task.
6. Modeled Faded Covert Self-Instruction	The teacher models covert instruction.
7. Covert Self-Instruction	The students perform the task while using private speech.

SELF-INSTRUCTION PROCEDURES

Cognitive Modeling

Initially, the teacher's speech controls and directs the students' behavior. Therefore, the first stage in this step requires that students observe the teacher as he or she models or performs a task while talking outloud. In this thinking-out-loud stage, the teacher defines the problem, asks questions, chooses a plan, shows how the plan is carried out, and self-reinforces. For example, a teacher can talk through staying on task using the following sequence:

1. "I need to stop and define the problem. I was told to do the math paper."
2. "I need to think, plan, then act. Where's the paper? O.K. I'm looking at the paper. Now what do I have to do? I have my pencil. I should do the first problem. I shouldn't look at the other problems. I should just focus on the first one, 1 +2=3."
3. "I need to reinforce myself. Good, I finished that one."
4. "I need to stop again. Now what do I have to do? Now I should do the next problem."
5. "I need to think, plan, then act until I am finished. OK, I finished the paper."
6. "I need to reinforce myself. Good, I did a good job."

Overt External Guidance

Next, the students perform the same task while listening to the teacher's self-instructions. The students imitate the teacher while the teacher is using overt self-instruction, that is, talking aloud. The students do the math paper while the teacher self-instructs by saying "I was told to do the math paper. Where's the paper? O.K. I'm looking at the paper. Now what do I have to do? I have my pencil. I should do the first problem. I shouldn't look at the other problems. I should focus on the first one, 1+2 =3. Good, I finished that one. Now next problem. I finished the paper. Good, I did a good job."

Overt Self-Guidance

Next, the students perform the task while instructing themselves outloud. They can use dialogue similar to that modeled by the teacher.

Fading Overt Self-Guidance: Modeled and Imitated

Next, the teacher models the same task, self-instructing in a whispered voice. The students then whisper the self-instructions while performing the task.

Modeled Covert Self-Instruction

Finally, the teacher models the last stage, covert (silent) instruction. She performs the task using inner speech, talking herself through the task silently. The students watch the teacher complete the page without hearing her say anything, but she reminds the students that she is using silent self-instruction.

Covert Self-Instruction

The students then perform the task while using inner speech to guide their performance. They complete the math paper while silently telling themselves what to do.

ENHANCING THE SUCCESS OF SELF-INSTRUCTION TRAINING

The self-instruction sequence contains several elements that are important to performance, including defining the problem, focusing attention and, guiding oneself, reinforcement, and self-evaluation (Mahoney, 1974). A key element to successful use of this strategy by children is rehearsal. During each step, students either listen to or recite the self-instruction. They repeat the entire sequence several times so that CBM becomes automatic. For students to become successful at controlling their behavior with CBM, training and practice for a variety of similar and dissimilar tasks are necessary. Continuously training and practicing those steps will make self-instruction automatic for students, allowing them to use these strategies in new academic and social situations. Students who are skilled in self-instruction can better control their behavior and contribute to a positive learning atmosphere.

REFERENCES

Mahoney, M. (1974). *Cognition and behavior modification.* Cambridge, Massachusetts: Ballinger.

Meichenbaum, D. (1979). *Cognitive Behavior Modification Newsletter,* Number 4.

Meichenbaum, D., & Goodman, J. (1971).Training impulsive children to talk to themselves: A means of developing self control. *Journal of Abnormal Psychology, 77,* 115-126.

Teaching Children with Attention Deficit/ Hyperactivity Disorder: Update 1998

The ERIC Clearinghouse on Disabilities and Gifted Education (ERIC EC)
The Council for Exceptional Children , 1920 Association Drive ,Reston, VA 20191
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Defining Attention Deficit Disorder/Attention Deficit Hyperactivity Disorder (ADD/ADHD)

Attention deficit disorder is a syndrome characterized by serious and persistent difficulties in the following three specific areas:

1. Attention span.
2. Impulse control.
3. Hyperactivity (sometimes).

ADD is a chronic disorder that can begin in infancy and extend through adulthood, having negative effects on a child's life at home, school, and within the community. It is conservatively estimated that 3 to 5% of our school-age population is affected by ADD.

The condition previously fell under the headings, "learning disabled," "brain damaged," "hyperkinetic," or "hyperactive." The term attention deficit disorder was introduced to describe the characteristics of these children more clearly.

Diagnosis of Attention Deficit Disorder/Hyperactivity Disorder (ADHD)

According to the criteria in the Diagnostic and Statistical Manual of Mental Disorders (4th ed., rev.) (American Psychiatric Association, 1994), to be diagnosed as having ADD/ ADHD, the clinician must note the presence of at least 6 of the 9 following criteria for either Attention Span or Hyperactivity/ Impulsivity.

Attention Span Criteria

Pays little attention to details; makes careless mistakes
Has short attention span
Does not listen when spoken to directly
Does not follow instructions; fails to finish tasks
Has difficulty organizing tasks
Avoids tasks that require sustained mental effort
Loses things
Is easily distracted
Is forgetful in daily activities

Hyperactivity Criteria

Fidgets; squirms in seat
Leaves seat in classroom when remaining seated is expected
Often runs about or climbs excessively at inappropriate times
Has difficulty playing quietly
Talks excessively

Impulsivity Criteria

Blurts out answers before questions are completed
Has difficulty awaiting turn
Often interrupts or intrudes on others

Establishing the Proper Learning Environment

- Seat students with ADD near the teacher's desk, but include them as part of the regular class seating.
- Place these students up front with their backs to the rest of the class to keep other students out of view.
- Surround students with ADD with good role models.
- Encourage peer tutoring and cooperative/ collaborative learning.
- Avoid distracting stimuli. Try not to place students with ADD near air conditioners, high traffic areas, heaters, or doors or windows.
- Children with ADD do not handle change well, so avoid transitions, physical relocation (monitor them closely on field trips), changes in schedule, and disruptions.
- Be creative! Produce a stimuli-reduced study area. Let all students have access to this area so the student with ADD will not feel different.
- Encourage parents to set up appropriate study space at home, with set times and routines established for study, parental review of completed homework,and periodic notebook and/or book bag organization.

Giving Instructions to Students with ADD/ADHD

- Maintain eye contact during verbal instruction.
- Make directions clear and concise. Be consistent with daily instructions.
- Simplify complex directions. Avoid multiple commands.
- Make sure students comprehend the instructions before beginning the task.
- Repeat instructions in a calm, positive manner, if needed.
- Help the students feel comfortable with seeking assistance (most children with ADD will not ask for help). Gradually reduce the amount of assistance, but keep in mind that these children will need more help for a longer period of time than the average child.
- Require a daily assignment notebook if necessary:
- Make sure each student correctly writes down all assignments each day.
- If a student is not capable of this, the teacher should help him or her.
- Sign the notebook daily to signify completion of homework assignments. (Parents should also sign.)
- Use the notebook for daily communication with parents.

Giving Assignments

- Give out only one task at a time.
- Monitor frequently. Maintain a supportive attitude.
- Modify assignments as needed. Consult with special education personnel to determine specific strengths and weaknesses of each student.
- Develop an individualized education program.
- Make sure you are testing knowledge and not attention span.
- Give extra time for certain tasks. Students with ADD may work slowly. Do not penalize them for needing extra time.
- Keep in mind that children with ADD are easily frustrated. Stress, pressure, and fatigue can break down their self-control and lead to poor behavior.

Modifying Behavior and Enhancing Self-Esteem

Providing Supervision and Discipline:

- Remain calm, state the infraction of the rule, and avoid debating or arguing with the student.
- Have preestablished consequences for misbehavior.
- Administer consequences immediately, and monitor proper behavior frequently.
- Enforce classroom rules consistently.
- Make sure the discipline fits the "crime," without harshness.
- Avoid ridicule and criticism. Remember, children with ADD have difficulty staying in control.
- Avoid publicly reminding students on medication to "take their medicine."

Providing Encouragement:

- Reward more than you punish, in order to build self-esteem.
- Praise immediately any and all good behavior and performance.
- Change rewards if they are not effective in motivating behavioral change.
- Find ways to encourage the child.
- Teach the child to reward himself or herself. Encourage positive self-talk (e.g., "You did very well remaining in your seat today. How do you feel about that?"). This encourages the child to think positively about himself or herself.

Other Educational Recommendations

- Educational, psychological, and/or neurological testing to determine learning style and cognitive ability and to rule out any learning disabilities (common in about 30% of students with ADD).
- A private tutor and/or peer tutoring at school.
- A class that has a low student-teacher ratio.
- Social skills training and organizational skills training.
- Training in cognitive restructuring (positive "self-talk," e.g., "I did that well").
- Use of a word processor or computer for schoolwork.
- Individualized activities that are mildly competitive or noncompetitive such as bowling, walking, swimming, jogging, biking, karate. (Note: Children withADD/ADHD may do less well than their peers in team sports.)
- Involvement in social activities such as scouting, church groups, or other youth organizations that help develop social skills and self-esteem.
- Allowing children with ADD to play with younger children if that is where they fit in. Many children with ADD have more in common with younger children than with their age-peers. They can still develop valuable social skills from interaction with younger children.

References

American Psychiatric Association. (1994). Diagnostic and statistical manual of mental disorders (4th ed., rev.) (DSM-IV-R). Washington, DC: APA.

Suggested Reading

Bender, W. (1997). *Understanding ADHD: A Practical Guide for Teachers and Parents.* Upper Saddle River, NJ:Merrill/Prentice Hall.

Fiore, T. (1993). Educational interventions for students with attention deficit disorder. *Exceptional Children, 60*(2), 163-73.

Gardill, M. (1996). Classroom strategies for managing students with attention deficit/ hyperactivity disorder. *Intervention in School and Clinic, 32*(2), 89-94.

Hallowell, E. (1994). *Driven to Distraction: Recognizing and Coping with Attention Deficit Disorder from Childhood through Adulthood.* Tappan, NJ: Simon & Schuster.

Hartmann, T. (1993). *Attention Deficit Disorder: A Different Perception.* Novato, CA: Underwood-Miller.

Reeve, R. (1996). *A Continuing Education Program on Attention Deficit/Hyperactivity Disorder.* Reston, VA: Council for Exceptional Children.

Rief, S. (1997). *The ADD/ADHD Checklist. An Easy Reference for Parents and Teachers.* Reston, VA: Council for Exceptional Children.

Robelia, B. (1997). Tips for working with ADHD students of all ages. *Journal of Experiential Education, 20(*1), 51-53.

Schiller, E. (1996). Educating children with attention deficit disorder. Our Children, 22(2), 32-33.

For more information:

Contact your local school psychologist, examiner, or personnel in charge of assessment and diagnosis in your school district for specific information and local programs.

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Innovative Practice

'Coaching' Teenagers with Attention Disorders

by Richard Guare and Peg Dawson

Introduction

Teenagers with attention disorders often struggle at the middle and high school level because schools place increasing demands on them to organize themselves and work independently. They routinely forget to write down assignments, complete homework or hand it in on time. They have tremendous difficulty using their time wisely, both in school and at home. They often don't know how to break down long-term assignments and develop reasonable time lines — or follow the time lines they create!

These students are often bright and capable, with adequate academic skills. And many want desperately to succeed. What gets them in trouble is poor organization and time management skills, along with feelings of discouragement accrued over years of failing to meet the expectations of parents, teachers and even themselves.

Coaching, originally described by Hallowell and Ratey (1994) in their book, *Driven to Distraction*, is an intervention designed to address these problems. We have adapted and expanded upon the coaching model to help students with attention disorders, executive skill deficits and production problems. As we have designed it, the model involves a trained adult working with students on a regular basis to help them plan their time, organize assignments, break down tasks, develop effective study skills and, above all, to act as supporter and cheerleader.

Our model involves an initial session at which a written plan including long-term goals and objectives is jointly developed by the coach and the student, followed by regular brief "coaching" sessions to evaluate progress and develop new objectives. This article will briefly review the theoretical rationale for this model as well as provide an overview of the model itself.

Coaching ADHD Students: Theoretical Rationale

Traditional views of attention disorders, as well as the current *DSM-IV* definition of ADHD, have emphasized three primary characteristics: inattention/distractibility, impulsivity and hyperactivity. Recently, Barkley (1995) has suggested that the disorder is better viewed as one of deficient self-regulation. He maintains that individuals with attention disorders have no difficulty sustaining attention to tasks that are novel and intrinsically interesting, and for which extrinsic consequences (rewards and penalties) are imposed. Rather, individuals with attention disorders are impaired in what Barkley calls "goal-directed persistence."

According to Barkley, the problem arises when there is a conflict between immediate and longer-term delayed consequences for a behavior. Individuals with attention disorders find it very difficult to sacrifice an immediate reward either to gain some longer-term reward or to avoid some later harm. Thus, students with attention disorders find it difficult to create and hold a mental image of a goal, devise a plan to follow, cope with the negative feelings associated with self-deprivation, motivate themselves to carry out the plan and experiment with diverse strategies for achieving their goal. In Barkley's model, these steps represent the executive functions of working memory, self-directed speech, self-regulation or affect and flexible problem solving. All these steps constitute behavioral self-regulation, and it is this characteristic that appears to be deficient in students with attention disorders.

By manipulating novelty, intrinsic interest and external reinforcement, teachers and others have been able to increase sustained attention in students with attention disorders. It is a common experience, however, that such interventions work for relatively brief periods of time only — how many teachers have complained to school psychologists, for instance, that the behavior intervention recommended by the school psychologist "worked for two or three weeks and then it fell apart!"?

We believe that interventions need to be keyed to behaviors that will facilitate achievement of longer-term goals — goal-directed persistence, in Barkley's terms. The model of coaching which we have developed seeks to do just this, particularly in Phase 1 of our process in which students are asked to identify long-term goals and to design action plans to achieve those goals.

The daily coaching sessions which follow the long-range goal-setting session draw on correspondence training research to support the process. Correspondence training has a long history in the behavioral literature, dating to Risley and Hart (1968) and more recently applied to an attention disordered population by Paniagua (1992). As defined by Paniagua, correspondence training refers to a chain of behaviors that "include a verbalization or report about either past or future behavior and the corresponding nonverbal behavior." In other words, when individuals make a verbal commitment to engage in a behavior at some later point, this increases the likelihood that they will actually carry out the behavior. In our model, for instance, we ask students to report what tasks they intend to accomplish before the next coaching session and to specify when they intend to accomplish them.

We believe our two-stage coaching process fits the theoretical model proposed by Barkley by focusing on building behavioral self-regulation. Furthermore, it uses research on correspondence training to support its efficacy with attention-disordered students.

The Coaching Process

Before the coaching process can begin, an appropriate "coach" needs to be identified and the student's willingness to participate in the process confirmed. In a school setting, a coach could be a caring teaching, a resource room teacher, a gym teacher or sports coach, an assistant principal or a teacher aide. We are currently experimenting with a peer coach and an adult "assistant coach." In choosing a coach, the educational qualifications of the potential coach are far less important than that individual's ability to establish rapport and a good working relationship with the student.

We believe that coaching should be a voluntary process. Thus, before coaching beings, the process should be described to the student and s/he should decide whether s/he wants to participate. Coaches may want to walk the student through the first phase of the process (the long-range planning meeting) before having the student make the commitment to coaching.

Developing an effective coaching relationship is a two-step process:

Phase 1 involves identifying the student's long-term goals, determining what criteria must be met in order to meet those goal and delineating the barriers that could interfere with success. This process takes place before coaching begins and then as a periodic check to determine if the long-term goals are still applicable and whether the student is making adequate progress toward achieving those goals.

Long-term goals might include earning a high school diploma, attending college or a vocational training program, or obtaining a specific kind of job. The barriers to reaching these goals might include skipping classes, failure to complete homework or frequent absences form school. The coach leads the student through a discussion of goals and barriers, helping the student to be as specific as possible.

The next phase of the discussion involves establishing short-term academic and behavioral objectives to support achieving the long-term goal. This might include making a commitment to work for specific grades in specific classes along with a discussion of what the student will need to do in order to earn those grades. For instance, if a goal is to earn a B- in Spanish, the student may identify that s/he will need to participate in class discussions regularly and concentrate on specific aspects of Spanish when studying for tests (e.g., making flash cards to learn vocabulary or grammar rules).

The final part of this session includes a discussion of the kinds of environmental supports or modifications the student may need in order to meet these academic and behavioral goals. These might include test modifications, a homework tracking system or an incentive system.

The Phase 2 procedure is followed at each coaching session — making short-term plans based on immediate behavioral and academic objectives and assessing how well those plans are implemented between coaching sessions. Coaching sessions occur daily for a period of 10-15 minutes. The steps of the daily coaching session follow the acronym R.E.A.P. and are described below:

Review — Review with the student the goals set at the last coaching session. Go over each item to determine if the student followed through on these goals.

Evaluate — Have the student assess how well the goals were accomplished. How many goals were met? What interfered with meeting goals? It may be helpful to develop a rating scale to use in assessing how well the student met the goals.

Anticipate — Ask the student to anticipate what has to be accomplished between now and the next coaching session. This should include a review of homework assignments, upcoming tests or quizzes and longer-term assignments that should be started. If necessary, check the student's assignment book to be sure he/she has remembered all assignments.

Plan — Ask the student what his/her plans are for completing tasks. Do not let the student be evasive — ask for specifics. Have the student schedule exactly what is going to be done when (e.g., "I will go to the school library during my lunch period today to locate a book for my book report."). Write it all down so it can be reviewed at the next coaching session. Conclude the session with words of encouragement and assurance that you know the student can meet these goals.

Outcomes of Coaching: We see our coaching model as addressing well the various executive deficits suggested by Barkley and others as fundamental to ADHD. Creating and holding a mental image and devising a plan are addressed through the development and rehearsal of written long-term goals and short-term objectives in the student's own language. Regular review, correspondence training and the help of the coach thus aid working memory and promote self-directed speech. Continuous review and reinforcement of the connection between short-term objectives and intrinsic long-term goals aid self-regulation of affect associated with feelings of deprivation. The daily planning process, including brainstorming with the coach, promotes flexible, novel problem solving. Finally, the daily encouragement provided by the coach both helps students sustain attention to the immediate objectives and ultimately keeps them moving along the road to their long-term goals.

We have used this coaching process over the last several years on an informal basis with students ranging in age form middle school to college. As one example, we are currently using coaching with a student who, despite a superior IQ and an intention to attend a four-year college, was maintaining a C/D average in his first three years in high school Each year, he began the year resolved that this year would be different from previous ones, but the outcome was always the same.

We began a coaching process in May of his junior year, focusing on tasks that needed to be completed during the summer and at the beginning of the school year. Because he would have to carry an extra credit load to graduate with his class, the plan included beginning his fall courses over the summer. He obtained the books for his three most difficult courses during the summer and began reading them. He also arranged to meet with his neighbor, a good math student, several times before school started to conduct a math review. This fall, his first progress report shows him carrying an A/B average in all subjects. Furthermore, teachers have remarked that his behavior and his level of commitment this year are markedly different from what they saw in the past.

We are in the process of collecting behavioral data with a set of high school students to put this model to a more formal test. We have developed a training manual that describes the process in greater detail and includes planning forms that will facilitate the coaching process. The manual is available for $10 (including shipping and handling) and can be obtained by writing to Peg Dawson, The Center for Learning and Attention Disorders, Jackson-Gray Building, Suite 206, 330 Borthwich Ave., Portsmouth, NH 03801. ♦

References

Barkley, R.A. (1995) Is there an attention deficit in ADHD? *The ADHD Report*, 3 (4), 1-4.

Hallowell, E.M. & Ratey, J.J. (1994). *Driven to Distraction*. New York: Pantheon.

Paniagua, F.A. (1992). Verbal-nonverbal correspondence training with ADHD children. *Behavior Modification*, 16, 226-252.

Risley, T.R., & Hart, B. (1968). Developing correspondence between the nonverbal and verbal behavior of preschool children. *Journal of Applied Behavior Analysis*, 1, 267-281.

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Intervention:

C. Empirically Supported Treatments

In an effort to improve the quality of treatment, the mental health field is promoting the use of empirically supported interventions. The following pages contain *excerpts* from a 1998 report entitled "Empirically Supported Psychosocial Treatments for Attention Deficit Hyperactivity Disorder" by W.E. Pelham, Jr., T. Wheeler, & A. Chronis, which appears in the *Journal of Clinical Child Psychology, 27*, 190-205.

Excerpted here are the abstract, an adapted table categorizing relevant research, the authors' conclusions, and the authors' reference list.

Abstract of article by W.E. Pelham, Jr., T. Wheeler, & A. Chronis, which appears in the *Journal of Clinical Child Psychology, 27*, 190-205.

Reviews and evaluates psychosocial treatments for attention deficit hyperactivity disorder (ADHD) in children and adolescents according to Task Force Criteria (Lonigan, Elbert, & Johnson, this issue). It is concluded that behavioral parent training and behavioral interventions in the classroom meet criteria for well-established treatments. Cognitive interventions do not meet criteria for well-established or probably efficacious treatments. Issues regarding the evaluative process are discussed and future directions for psychosocial treatment for ADHD are outlined.

The excerpts on the following pages highlight the gist of this work.

The authors note: "Behavioral interventions have been used for children specifically diagnosed as having ADHD for more than 20 years (e.g., K.D. O'Leary, Pelham, Rosenbaum, & Price, 1976), and a large number of studies, described in Table 1, have been conducted. . . . however, the number of acute studies and treated children that have been involved in *pharmacotherapy* far exceeds the number of studies and individuals who have been treated with *behavioral* interventions." (p. 190)

"Phamacological treatments for ADHD are far more widely employed, are less expensive, and have much more short-term empirical support than psychosocial treatments." (p. 191)

"All of the psychosical treatments that we found in our searches would be labeled as behavioral or cognitive behavioral...(a) clinical behavior therapy; (b) direct contingency management; (c) cognitive behavioral intervention; and (intensive, packaged behavioral treatments." (p. 193)

Table 1. *Categorization of Studies Reviewed*

I. Behavioral Parent Training:
Studies That Contribute to Meeting Task Force Criteria for Well-Established Treatment

A. Studies Employing Between-Group Designs	*N*	Control Conditions	Measures [a]
1. Firestone et al. (1981), with Firestone et al. (1986) [c]	1981: 43; 1986: 52 1st, 30 2nd	Methylphenidate	2, 3, 6, 8, 9
2. Gittelman et al. (1980) (partial *N* in 1976; expanded *N* in 1984 and 1985, in press) [c]	89 (95% male)	Methylphenidate	2, 5, 6, 8, 12
3. Horn et al. (1990) [c]	42 (81% male)	Self-control therapy	2, 6, 8, 9, 11
4/5. Horn et al. (1991) with Ialongo et al., 1993 (follow-up) [c]	96 (77% male)	Methylphenidate, Self-control therapy	2, 3, 5, 6, 8, 9, 11
6. Pelham et al. (1988) [c]	32 (88% male)	Methylphenidate,	2, 5, 6, 8, 10
B. Studies Employing Single-Subject Designs: None			

II. Behavioral Parent training:
Studies That Contribute to Meeting Task Force Criteria for Probably Efficacious Treatment

A. Studies Employing Between-Group Designs	*N*	Control Conditions	Measures [b]
1. Anastopoulos et al. (1993)	34 (74% male)	Wait-list control group	2, 3, 4
2. Pesterman et al. (1989)	46 (80% male)	Wait-list control group	1
3. Pisterman et al. (1992b)	45 (93% male)	Wait-list control group	1, 2, 3
4. Pisterman et al. (1992 a) additional measures and follow-up from #2 and #3)	91 (86% male)	Wait-list control group	1, 2, 3
5. Dubey, O'Leary, & Kaufman (1983) [e]	37 (87% male)	Parent effectiveness training,	1, 2, 3, 13

Note: [a] Efficacious depending on measure and must collapse over groups to have sufficient total sample size. [b] Dependent measures: 1 = parent-child observations; 2 = parent ratings; 3 = parental functioning; 4 = family functioning; 5 = classroom observations; 6 = teachers ratings; 7 = academic productivity; 8 = academic achievement; 9 = cognitive tests; 10 = peer relationships; 11 = child self-ratings; 12 = clinician ratings; 13 = consumer satisfaction ratings; 14 = behavior frequency counts; 15 = activity level measures. [c] Treatments equal and superior to wait-list. [d] All treatments showed equal improvement. [e] Depends on subject and dependent measure. [f] Effects not clearly apparent.

IV. Behavioral Modification in Classroom Settings:
Studies That Contribute to Meeting Task Force Criteria for Well-established Treatment

A. Studies Employing Between-Group Designs	*N*	Control Conditions	Measures [a]
1. Gittleman et al. (1980) (partial *N* in 1976; ex-	89 (95% male)	Methylphenidate	2, 5, 6, 8, 12
2. Pelham et al. (1988)[b]	32 (88% male)	Methylphenidate, social skills training	2, 5, 6, 8, 10
B. Studies Employing Single-Subject Designs	***N***	**Control Conditions**	**Measures [a]**
1. Abramowitz et al. (1992)	3 (100% male)	Methylphenidate, delayed vs. short reprimands	5
2. Abramowitz & O'Leary (1990)	4 (100% male)	Delayed reprimands, reversal	5
3. Abramowitz et al. (1988)	7 (100% male)	Short vs. long reprimands	5, 7
4. Abramowitz et al. (1987)	16 (75% male)	Encouragement vs. reprimands, no-	5, 7
5. Atkins et al. (1989)	1 (male)	No-treatment reversal, multiple	5, 7, 10
6. Ayllon, Layman, & Kandel (1975)	3 (67% male)	Methylphenidate	5, 7
7. Barkley, Copeland, & Sivage (1980) [c]	7 (100% male)	No-treatment reversal	5, 15
8. Broden, Bruce, Mitchell, Carter, & Hall	2 (100% male)	No-treatment reversal	5
9. Carlson et al. (1992)	24 (100% male)	Methylphenidate,	5, 7, 11
10. Gordon, Thamason, Cooper, & Ivers (1991)	6 (50% male)	No-treatment reversal	5
11. Hoza et al. (1992)	2 (100% male)	Methylphenidate, increased	5, 7
12. Kelley & McCain (1995)	5 (40% male)	No-response cost reversal	5, 7, 13
13. Loney, Weissenberger, Woolson, & Lichty	12 (100% male)	Methylphenidate,	5
14. McCain & Kelley (1993)	1 male	No-treatment reversal	5
15. Pelham et al. (1993)	31 (100% male)	Methylphenidate,	5, 6, 7
16. Rapport, Murphy, & Bailey (1980)	2 (50% male)	No-treatment reversal,	5, 7
17. Rapport et al. (1982)	2 (100% male)	Methylphenidate, reversal	5, 6, 7
18. Rosen et al. (1984)	23 (over 3 studies)	No-treatment reversal	5, 7
19. Sullivan & O'Leary (1990)	10 (50% male)	Reward versus response cost	5
20. Umbreit (1995)	1 (male)	No-treatment baseline	5
21. Wolraich et al. (1978)	20	Methylphenidate, regular	5, 6, 7

V. Behavioral Modification in Classroom Setting:
Studies That Contribute to Meeting Task Force Criteria for Probably Efficacious Treat-

A. Studies Employing Between-Group Designs	*N*	Control Conditions	Measures [a]
1. O'Leary et al. (1976)	17	Wait-list control group	6
B. Studies Employing Single-Subject Designs: None			

VI. Behavioral Modification in Classroom Settings: Studies That Do Not Contribute to Meeting Task Force Criteria for Well-Established or Probably Efficacious Treatment

A. Studies Employing Between-Group Designs	*N*	Control Conditions	Measures [a]
1. O'Leary & Pelham (1978)	7	Pre-post	2, 5, 6
2. Pelham et al. (1980)	8 (88% male)	Methylphenidate	1, 2, 5, 6
3. Rosenbaum, O'Leary, & Jacob (1975)	10	Pre-post	6, 13
B. Studies Employing Single-Subject Designs	*N*	Control Conditions	Measures [a]
1. DuPaul et al. (1992) [f]	2 (100% male)	No-treatment reversal	5, 6, 7
2. DuPaul & Henningson (1993) [f]	1 (male)	No-treatment reversal	5, 7
3. Evans et al. (1995) [f]	1 (male)	No-treatment reversal	5
4. Pollard et al. (1983) [f]	3 (100% male)	Methylphenidate,	2, 4, 5

C. Numerous studies support the effectiveness of behavior therapy in the classroom, but the participant groups are too heterogeneous

1. Acker & O'Leary (1987)	11. Lovitt & Curtiss (1969)
2. Acker & O'Leary (1988)	12. O'leary et al. (1970)
3. Becker, Madsen, Arnold, & Thomas (1967)	13. Pfiffner & O'Leary (1987)
4. Bowers et al.	14. Pfiffner, O'Leary et al. (1985)
5. Clark et al. (1973)	15. Pfiffner, Rosen et al. (1985)
6. Hops et al (1978)	16. Robinson et al. (1981)
7. Hundert, Bucher, & Henderson (1976)	17. Stableford et al. (1976)
8. Iwata & Bailey (1974)	18. Thomas et al. (1968)
9. Kauffman & O'Leary (1972)	19. Van Houten et al. (1982)
10. Kent & O'Leary (1976)	20. Walker et al. (1975)

(p. 200)

• • •

" We conclude this article with a brief discussion of some key questions that remain to be answered and problems that remain to be solved with respect to psychosocial treatments for ADHD. We also briefly discuss current initiatives and trends in the field that impact on psychosocial treatments for ADHD.

The first point is that despite the evidence for the efficacy of behavioral treatments for ADHD, these interventions have limitations, and these limitations are in many ways similar to those of psychostimulant medication that we previously discussed (Pelham & Murphy, 1986). First, behavioral treatments, although effective, do not typically normalize ADHD children (Abikoff & Gittelman, 1984), with posttreatment levels usually being standard deviation above normative means (e.g., Pelham et al., 1988). The short-term effects of behavioral interventions are typically limited to the periods when the programs are actually in effect; when treatment is withdrawn, children often lose the gains made during treatment. Such findings highlight the importance of extending treatments past an initial period to maintain initial gains. Unfortunately, few studies have implemented maintenance strategies into their treatment protocols. Few studies have yet shown maintenance of treatment gains beyond a few months after therapy is terminated (cf. Ialongo et al., 1993).

Furthermore, a substantial minority of children(comparable to the proportion cited for stimulant medication) fail to show improvement (e.g., Pelham et al., 1988). In many cases such failure may be attributable to the unwillingness or inability of parents and teachers to implement the behavioral programs as directed, with noncompliance and dropout from treatment common outcomes (Fuchs & Fuchs, 1989; Prinz & Miller, 1994; Wahler, 1980; Witt, 1986). Even when parents and teachers apparently comply with treatment, manipulation checks of whether they actually follow through with treatment have rarely been conducted.

Just as some of the limitations of medication can be removed by increasing the dosage, the effects of behavior therapy can be maximized by increasing the power and comprehensiveness of the intervention. The standard clinical behavior therapy approach involving weekly contact with parents and teachers is less potent than are highly structured, closely monitored, contingency-management programs. Because it is quite time-consuming and difficult to conduct such systems unassisted, however, parents and regular classroom teachers are typically much less willing to implement complex contingency-management programs.The efficacy of behavior therapy thus depends on the motivation and capabilities of the significant adults in the child's life, as well as setting barriers to implementation, and on the skills of the interveners in overcoming such obstacles. If key adults are unwilling or unable to implement the interventions, and if the objections or obstacles to intervention cannot be overcome, then behavior therapy will not be *effective* in real-world settings, despite the empirical evidence for its *efficacy* in empirical studies. ...

As we have written elsewhere, multimodal treatment, in which a low dose of stimulant medication is combined with behavioral treatments, may be the most effective and most cost-effective treatment for ADHD. A number of short-term studies have shown that lower medication doses with fewer side effects can be integrated with less intensive, less complex, and therefore less expensive psychosocial treatments to yield a combined package with short-term efficacy equivalent to that produced by high and therefore undesirable doses of medication and to that yielded by complicated and expensive behavioral treatments (Pelham & Murphy, 1986; Pelham & Waschbusch, in press). Unfortunately, no long-term outcome data exist regarding efficacy or effectiveness of pharmacological versus psychosocial versus combined treatments. It is becoming increasingly important to answer cost- benefit questions in the current era of managed care and health care reform, and studies of the cost-effectiveness of behavioral and multimodal treatments are badly needed.

An important but relatively unstudied aspect of behavioral treatments for ADHD is their exportability to clinic settings-the issue of efficacy versus effectiveness (Hoagwood, Hibbs, Brent, & Jensen, 1995; Weisz et al., 1995). Although most of the studies we reviewed were conducted in hospital or clinic settings, they were usually university-based hospitals and clinics. There are undoubtedly differences between the staff and resources of such clinics and those of community mental health settings. As Weisz et al. (1995) noted, such factors likely lead to an overestimation of the effectiveness of behavioral treatments for ADHD as they are likely to be conducted in the mental health system. Research on the exportability of behavioral treatment and their effectiveness in real-world settings needs to be conducted.

Finally, and perhaps most important, the long-term effects of different types of behavioral and combinations of behavioral and pharmacological therapy need to be studied. The short-term efficacy of most types of behavior therapy is well documented. However, virtually no studies have yet examined whether these short-term improvements have any substantial impact, either alone or in combination with medication, on the long-term outcome of children with ADHD. Given the chronicity and poor outcome of ADHD, the answer to this question is critical. As we have discussed, the answer may very well differ depending on the intensity of the behavioral treatment, the consistency, duration, and scope with which it was administered, and whether appropriate pharmacological treatments were adjunctively applied. It is somewhat disconcerting to note that maintenance of short-term behavioral treatment gains has been the pressing question in treatment for disruptive behavior for the past 30 years (e.g., Stokes & Baer, 1977). Most of the between-group studies cited in Table 1 were conducted during the mid- to late 1970s, but no research on long-term maintenance of behavioral treatments for ADHD has been conducted during the intervening 2 decades. ...

References

Abikoff, H., Ganeles, D., Reiter, G., Blum, C., Foley, C., & Klein, R. G. (1988). Cognitive training in academically deficient ADDH boys receiving stimulant medication. *Journal of Abnormal Child Psychology, 16,* 411-432.

Abikoff, H., & Gittelman, R. (1984). Does behavior therapy normalize the classroom behavior of hyperactive children? *Archives of General Psychiatry, 41,* 449- 454.

Abikoff, H., & Gittelman, R. (1985). Hyperactive children treated with stimulants: Is cognitive training a useful adjunct? *Archives of General Psychiatry, 42,* 953-961.

Abramowitz A. J., Eckstrand, D., O'Leary, S. G., & Dulcan, M. K. (1992). ADHD children's responses to stimulant medication and two intensities of a behavioral intervention. *BehaviorModificahonw 16,* 193-203.

Abramowitz A. J., & O'Leary, S. G. (1990). Effectiveness of delayed punishment in an applied setting. *Behavior Therapy, 21,* 231-239.

Abramowitz A. J., O'Leary, S. G., & Futtersak, M. W. (1988). The relative impact of long and short reprimands on children's off-task behavior in the classroom. *Behavior Therapy, 19,* 243-247.

Abramowitz A. J., O'Leary, S. G., & Rosen, L. A. (1987). Reducing off-task behavior in the classroom: A comparison of encouragement and reprimands. *Journal of Abnormal Child Psychology, 15,* 153-163.

Acker, M. M., & O'Leary, S. G. (1987). Effects of reprimands and praise on appropriate social behavior in the classroom. *Journal of Abnormal Child Psychology, 5,* 549-557.

Acker, M. M., & O' Leary, S . G. (1988). Effects of consistent and inconsistent feedback on inappropriate child behavior. *Behavior Therapy, 19,* 619-624.

American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders (4th* ed.). Washington, DC: Author.

Anastopoulos, A. D., Shelton, T. L., DuPaul, G. J., & Guevremont, D. C. (1993). Parent training for attention-deficit hyperactivity disorder: Its impact on parent functioning. *Journal of Abnormal Child Psychology, 21,* 581-596.

Arnold, L. E., Abikoff, H. B., Cantwell, D. P., Conners, C. K., Elliott, G., Greenhill, L. L., Hechtman, L., Hinshaw, S. P., Hoza, B., Jensen, P. S., Kraemer, H., March, J., Newcom, J., Pelham, W. E., Richters, J., Severe, J. B., Schiller, E., Swanson, J. M., Vereen, D., & Wells, K. (1997). National Institute of Mental Health Collaborative Multimodal Treatment Study of children with ADHD (MTA): Design challenges and choices. *Archives of General Psychiatry,* 54, 865-870.

Atkins, M. S., Pelham, W. E., & Licht, M. (1985). A comparison of objective classroom measures and teacher ratings of attention deficit disorder. *Journal of Abnormal Child Psychology, 13,* 155-167.

Atkins, M. S., Pelham, W. E., & White, K. J. (1989). Hyperactivity and attention deficit disorders. In M. Hersen (Ed.), *Psychological aspects of developmental and physical disabilities: A case-book* (pp. 137-156). Newbury Park, CA: Sage.

Ayllon, T., Layman, D., & Kandel, H. J. (1975). A behavioral-educational alternative to drug control of hyperactive children. *Journal of Applied Behavior Analysis, 8,* 137-146.

Baer, R. A. & Nietzel, M. T. (1991). Cognitive and behavioral treatment of impulsivity in children: A meta-analytic review of the outcome literature. *Journal of Clinical Child Psychology, 20,* 400-412.

Barkley, R. A. (1987). *Defiant children: Parent-teacher assignments.* New York: Guilford.

Barkley, R. A. (1995). *Taking charge of ADHD: The complete, authoritative guide for parents.* New York: Guilford.

Barkley, R. A., Copeland, A. P., & Sivage, C. (1980). A self-control classroom for hyperactive children. *Journal of Autism and Developmental Disorders, 10,* 75-89.

Barkley, R. A., Guevremont, D. C., Anastopoulos, A. D., & Fletcher, K. E. (1992). A comparison of three family therapy programs for treating family conflicts in adolescents with attention-deficit hyperactivity disorder. *Journal of Consulting and Clinical Psychology, oO,* 450-462.

Barkley, R. A., Karlsson, J., Pollard, S., & Murphy, J. (1985). Developmental changes in the mother-child interactions of hyperx-tive boys: Effects of two doses of Ritalin. *Journal of Child Psychology and Psychiatry, 26,* 705-715.

Barkley, R. A., Karlsson, J., Strzelecki, E., & Murphy, J. V. (1984). Effects of age and Ritalin dosage on the mother-child interactions of hyperactive children. *Journal of Consulting and Clinical Psychology, 52,* 739-749.

Becker, W. C., Madsen, C. H., Arnold, C. R., & Thomas,

D. R. (1967). The contingent use of teacher attention and praise in reduction of classroom behavior problems. *The Journal of Special Education, 1,* 287-307.

Bloomquist, M. L., August, G. J., & Ostrander, R. (1991). Effects of a school-based cognitive-behavioral intervention for ADHD children. *Journal of Abnormal Child Psychology, 19,* 591-605.

Bowers, D. S., Clement, P. W., Fantuzzo, J. W., & Sorensen, D. A. (1985). Effects of teacher-administrated and self-administrated reinforcement on learning disabled children . *Behavior Therapy,* 16, 357-369.

Broden, M., Bruce, C., Mitchell, M. A., Carter, V., & Hall, R. V. (1972). Effects of teacher attention on attending behavior of two boys at adjacent desks. In K. D. O'Leary & S. G. O'Leary (Eds.), Classroom management: *The successful use of behavior modification* (pp. 249-256). New York: Pergamon.

Brown, R. T., Borden, K. A., Wynne, M. E., Spunt, A. L., & Clingerman, S. R. (1987). Compliance with pharmacological and cognitive treatment for attention deficit disorder. *Journal of the American Academy of Child and Adolescent Psychiatry, 26,* 521-526.

Carlson, C. L., Pelham, W. E., Milich, R., & Dixon, J. (1992). Single and combined effects of methylphenidate and behavior therapy on the classroom performance of children with ADHD. *Journal of Abnormal Child Psychology, 20,* 213-232.

Chambless, D. L., Sanderson, W. C., Shoham, V., Johnson, S. B., Pope, K. S., Crits-Christoph. P., Baker, M., Johnson, B., Woods, S. R., Sue, S., Beutler, L, Williams, D. A., & McCurry, S. (1996). An update on empirically validated therapies. *The Clinical Psychologist, 49,* 5-18.

Charles, L., & Schain, R. (1981). A four-year follow-up study of the effects of methylphenidate on the behavior and academic achievement of hyperactive children. *Journal of Abnormal Child Psychology, 9,* 495-505.

Clark, H. B., Rowbury, T., Baer, A. M ., & Baer, D. M. (1973). Time-out as a punishing stimulus in continuous and intermittent schedules. *Journal of Applied Behavior Analysis. 6,* 443-455.

Coie, J. D., & Dodge, K. A. (1998). Aggression and antisocial behavior. In W. Damon & N . Eisenberg (Eds.), *Handbook of child psychology (Vol.* 3, pp. 779-862). New York: Wiley.

Conners, C. K. (1969). A teacher rating scale for use in drug studies with children. *American Journal of Psychiatry, 126,* 152-156.

Cunningham, C. E., Bremner, R., & Secord-Gilben, M. (1994). *The community parent education (COPE) program: A school based family systems oriented course for parents of children with disruptive behavior disorders.* Unpublished manuscript, McMaster University and Chedoke-McMaster Hospitals.

Dubey, D. R., O'Leary, S. G., & Kaufman, K. F. (1983). Training parents of hyperactive children in child management: A comparative outcome study. *Journal of Abnormal Child Psychology, 11,* 229-246.

DuPaul, G. J. (1991). Parent and teacher ratings of ADHD symptoms: Psychometric properties in a community-based sample. *Journal of Clinical Child Psychology, 20,* 245-253.

DuPaul, G. J., Guevremont, D. C., & Barkley, R. A. (19St2). Behavioral treatment of attention-deficit hyperactivity disorder in the classroom: The use of the attention training system. *Behavior Modification, 16,* 204-225.

DuPaul, G. J. & Henningson, P. N. (1993). Peer tutoring effects on the classroom performance of children with ADHD. *School Psychology Review, 22,* 134-143.

Durlak, J. A., Fuhrman, T., & Lampman, C. (1991). Effectiveness of cognitive behavior therapy for maladapting children: A meta-analysis. *Psychological Bulletin, 110,* 204 214.

Erhardt, D., & Baker, B. L. (1990). The effects of behavioral parent training on families with young hyperactive children. *Journal of Behavior Therapy and Experimental Psychiatry, 21,* 121-132.

Evans, J. H., Ferre, L., Ford, L. A., & Green, J. L. (1995). Decreasing ADHD symptoms utilizing an automated classroom reinforcement device. *Psychology in the Schools, 32,* 210-219.

Firestone, P., Crowe, D., Goodman, J. T., & McGrath, P. (1986). Vicissitudes of follow-up studies: Differential effects of parent training and stimulant medication with hyperactives. *American Journal of Orthopsychiatry, 56,* 186194.

Firestone, P., Kelly, M. J., Goodman, J. T., & Davey, J. (1981). Differential effects of parent training and stimulant medication with hyperactives. *Journal of the American Academy of Child Psychiatry, 20,* 135-147.

Fischer, M. (1990). Parenting stress and the child with attention deficit hyperactivity disorder. *Journal of Clinical Child Psychology, 19,* 337-346.

Forehand, R., & Long, N. (1996). *Parenting the strong-willed child.* Chicago: Contemporary Books.

Forehand, R. E., & McMahon, R. I. (*1981). Helping the noncompliant child: A clinician's guide to parent training.* New York-Guilford

Forgatch, M., & Patterson, G. R. (1989). *Parents and adolescents living together: Part 2: Family problem solving.* Eugene, OR: Castalia.

Fuchs, D., & Fuchs, L. S. (1989). Exploring effective and efficient prereferral interventions: A component analysis of behavioral consultation. *School Psychology Review, 18,* 260-283.

Gittelman, R., Abikoff, H., Pollack, E., Klein, D. F., Katz, S., & Mattes, J. (1980). A controlled trial of behavior modification and methylphenidate in hyperactive children. In C. K. Whalen & B. Henker (Eds.), *Hyperactive children: The social ecology of identification and treatment* (pp. 221-243). New York: Academic.

Gordon, M., Thomason, D., Cooper, S., & Ivers, C. L. (1991). Non-medical treatment of ADHD/hyperactivity: The Attention Training System. *Journal of School Psychology. 29,* 151-159.

Goyette, C. H., Conners, C. K., & Ulrich, R. F. (1978). Normative data on revised Conners Parent and Teacher Rating Scales. *Journal of Abnormal Child Psychology, 6,* 221-236.

Greenhill, L. L. (1992). Pharmacologic treatment of attention deficit hyperactivity disorder. *Psychiatric Clinics of North America, 15,* 1-27.

Handen, B. L. (1993). Pharmacotherapy in mental

retardation and autism. *School Psychology Review, 22,* 162-183.

Hinshaw, S. P. (1991). Stimulant medication and the treatment of aggression in children with attentional deficits. *Journal of Clinical Child Psychology, 20,* 301-312.

Hinshaw, S. P. (1994). *Attention deficits and hyperactivity in children.* Thousand Oaks. CA: Sage

Hinshaw, S. P., & Ehrardt, D. (1991). Attention-deficit hyperactivity disorder in P. Kendall (Ed.), *Child and adolescent therapy: Cognitive-behavioral procedures* (pp. 98- 128). New York: Guilford .

Hoagwood, K., Hibbs, E., Brent, D., & Jensen, P. (1995). Introduction to the special section: Efficacy and effectiveness in studies of child and adolescent psychotherapy . *Journal of and Clinical Psychology, 63,* 683-687.

Hops H., Walker, H. M., Fleischman, D. H., Nagoshi, J. T., Omura, R. T., Skindrud, K., & Taylor, J. (1978). CLASS: A standardized in-class program for acting-out children: II. Field test evaluations. *Journal of Educational Psychology, 70,* 636-644.

Horn, W. F., Ialongo, N., Greenberg, G., Packard, T., & Smith-Winberry, C. (1990). Additive effects of behavioral parent training and self-control therapy with ADHD children. *Journal of Clinical Child Psychology, 19,* 98-110.

Horn, W. F., Ialongo, N., Pascoe, J. M., Greenberg, G., Packard, T., Lopez, M., Wagner, A., & Puttler, L. (1991). Additive effects of psychostimulants, parent training, and self-control therapy with ADHD children: A 9-month follow-up. *Journal of the American Academy of Child and Adolescent Psychiatry, 32,* 182-189.

Horn, W. F., Ialongo, N., Popovich, S., & Peradoto, D. (1987). Behavioral parent training and cognitive-behavioral self-control therapy with ADHD children: Comparative and combined effects. *Journal of Clinical Child Psychology, 16,* 57-68.

Hoza, B., Pelham, W. E., Sams, S. E., & Carlson, C. (1992). An examination of the dosage effects of both behavior therapy and methylphenidate on the classroom performance of two ADHD children. *Behavior Modification, 16,* 164-192.

Hundert, J., Bucher, B., & Henderson, M. (1976). Increasing appropriate classroom behavior and academic performance by reinforcing correct work alone. *Psychology in the Schools, 13,* 195-200.

Ialongo, N. S., Horn, W. F., Pascoe, J. M., Greenberg, G., Packard, T., Lopez, M., Wagner, A., & Puttler, L. (1993). The effects of a multimodal intervention with attention-deficit hyperactivity disorder children: A 9-month follow up. *Journal of the American Academy of Child and Adolescent Psychiatry, 32,* 182- 189.

Iwata, B. A., & Bailey, J. S. (1974). Reward versus cost token systems: An analysis of the effects on student and teacher. *Journal of Applied BehaviorAnalysis, 7,* 567-576.

Jensen, P. S., Kettle, L., Roper, M., Sloan, M., Dulcan, M., Hoven, C., Bird, H., & Bauermeister, J. (1997). *Suffer the restless children: Attention deficit hyperactivity disorder and its treatment in 4 U.S. communities.* Manuscript submitted for publication.

Kaufman, K. & O'Leary, K. D. (1972). Reward, cost, and self evaluation procedures for disruptive adolescents in a psychiatric hospital school. *Journal of Appiled Behavior Analysis, 5,* 293-310.

Kazdin, A. E. (1996). Problem solving and parent management in treating aggressive and antisocial behavior. In E. D. Hibbs & P. S. Jensen (Eds.), *Psychological treatments for child and adolescent disorders. Empirically based strategies for clinical practice* (pp. 377-408). Washington, DC: American Psychological Association

Kelley, M. L., & McCain, A. P. (1995). Promoting academic performance in inattentive children: The relative efficacy of school-home notes with and without response cost. *Behavior Modification, 19,* 357-375.

Kendall, P. C., & Gosch, E. A. (1994). Cognitive-behavioral interventions. In T. H. Ollendick, N. J. King, & W. Yule (Eds.), *International handbook of phobic and anxiety disorders in children and adolescents* (pp. 415-438). New York: Plenum.

Kent, R. N., & O'Leary, K. D. (1976). A controlled evaluation of behavior modification with conduct problem children. *Journal of Consulting and Clinical Psychology, 44,* 586-596.

Klein, R. G., & Abikoff, H. (in press). Behavior therapy and methylphenidate in the treatment of children with ADHD. *Journal of Attention Disorders.*

Lochman, J. E. (1992) Cognitive-behavioral intervention with aggressive boys: Three-year follow up and preventive effects. *Journal of Consulting and Clinical Psychology, 60,* 426-432.

Lochman, J. E., & Lenhart, L. A. (1993). Anger coping intervention for aggressive children: Conceptual models and outcome effects. *Clinical Psychology Review, 13,* 785-805.

Loney, J., Weissenberger, P. E., Woolson, R. F., & Lichty, E. C. (1979). Comparing psychological and pharmacological treatments for hyperkinetic boys and their classmates . *Journal of Abnormal Child Psychology, 7,* 133-143.

Lovitt, T. C., & Curtiss, K. A. (1969). Academic response rate as a function of teacher-imposed and self-imposed contingencies. *Journal of Applied BehaviorAnalysis, 2,* 49-53.

Lynam, D. R. (1996). Early identification of chronic offenders: Who is the fledgling psychopath? *Psychological Bulletin, 120,* 209-234.

Mash, E. J., & Johnston, C. (1990). Determinants of parenting stress: Illustrations from families of hyperactive children and families of physically abused children. *Journal of Clinical Child Psychology, 19,* 313-328.

McCain, A. P., & Kelley, M. L. (1993). Managing the classroom behavior of an ADHD preschooler: The efficacy of a school-home note intervention. *Child and Family Behavior Therapy, 15,* 33-44.

McFall, R. M. (1991). Manifesto for a science of clinical psychology. *The Clinical Psychologist, 44,* 75-88.

Meichenbaum, D., & Goodman, J. (1971). Training impulsive children to talk to themselves: A means of developing self-control. *Journal of Abnormal Psychology, 77,* 115-126.

Molina, B. S. G., Smith, B., & Pelham, W. E. (1997, July). *Attention deficit hyperactivity disorder, conduct disorder, and alcohol use by early adolescents.* Poster presented at the annual meeting

of the Research Society on Alcoholism, San Francisco.

O'Leary, K. D., & Becker, W. C. (1967). Behavior modification of an adjustment class: A token reinforcement program. *Exceptional Children, 33,* 637-642.

O'Leary, K. D., Kaufmann, K. F., Kass, R. E., & Drabman, R. S. (1970). The effects of loud and soft reprimands on the behavior of disruptive students. *Exceptional Children, 37,* 145-155.

O'Leary, K. D., Pelham, W. E., Rosenbaum, A., & Price, G. (1976). Behavioral treatment of hyperkinetic children: An experimental evaluation of its usefulness. *Clinical Pediatrics, 15,* 510-515.

O'Leary, S. G., & Pelham, W. E. (1978) . Behavior therapy and withdrawal of stimulant medication with hyperactive children. *Pediatrics, 61,* 211-217.

Patterson, G. R. (1974). Intervention for boys with conduct problems: Multiple settings, treatment, and criteria. *Journal of Consulting and Clinical Psychology, 42,* 471-481.

Patterson, G. R. (1976). *Living with children: New methods for parents and teachers.* Champaign, IL: Research Press.

Patterson, G. R. (1982). *Coercive Family process.* Eugene, OR: Castalia.

Pelham, W. E. (1977). Withdrawal of a stimulant drug and concurrent behavioral intervention in the treatment of a hyperactive child. *Behavior Therapy, 8,* 473-479.

Pelham, W. E. (1993). Pharmacotherapy for children with attention-deficit hyperactivity disorder. *School Psychology Review, 22,* 199-227.

Pelham, W. E., Carlson, C., Sams, S. E., Vallano, G., Dixon, M. J., & Hoza, B. (1993). Separate and combined effects of methylphenidate and behavior modification on boys with attention deficit-hyperactivity disorder in the classroom. *Journal of Consulting and Clinical Psychology, 61,* 506-515.

Pelham, W. E., Gnagy, E. M., Greenslade, K. E., & Milich, R. (1992). Teacher ratings of *DSM-III-R* symptoms of the disruptive behavior disorders. *Journal of the American Academy of Child and Adolescent Psychiatry, 31,* 210-218.

Pelham, W. E., & Hoza, B. (1996). Intensive treatment: A summer treatment program for children with ADHD. In E. Hibbs & P. Jensen (Eds.), *Psychosocial treatments for child and adolescent disorders: Empirically based strategies for clinical practice* (pp. 311-340). New York: APA Press.

Pelham, W. E., & Lang, A. R. (1993). Parental alcohol consumption and deviant child behavior: Laboratory studies of reciprocal effects. *Clinical Psychology Review, 13,* 763-784.

Pelham, W. E., Lang, A. R., Atkeson, B., Murphy, D. A., Gnagy, E. M., Greiner, A. R., Vodde-Hamilton, M., & Greenslade, K. E. (1997). Effects of deviant child behavior on parental distress and alcohol consumption in laboratory interactions. *Journal of Abnormal Child Psychology, 25,* 413 424.

Pelham, W. E., & Murphy, H. A. (1986). Attention deficit and conduct disorder. In M. Hersen (Ed.), *Pharmacological and behavioral treatment: An integrative approach* (pp. 108-148). New York: Wiley.

Pelham, W. E., Schnedler, R. W., Bender, M. E., Miller, J., Nilsson, D., Budrow, M., Ronnei, M., Paluchowski, C., & Marks, D. (1988). The combination of behavior therapy and methylphenidate in the treatment of hyperactivity: A therapy outcome study. In L. Bloomingdale (Ed.), *Attention deficit disorders* (Vol. 3, pp. 29-48). London: Pergamon.

Pelham, W. E., Schnedler, R. W., Bologna, N., & Contreras, A. (1980). Behavioral and stimulant treatment of hyperactive children: A therapy study with methylphenidate probes in a within-study design. *Journal of Applied Behavioral Analysis, 13,* 221-236.

Pelham, W. B., & Smith, B. H. (in press). Prediction and measurement of individual responses to Ritalin by children and adolescents with ADHD. In L. Greenhill & B. P. Osman (Eds.), *Ritalin: Theory and patient management* (2nd ed.). New York: Mary Ann Liebert, Inc.

Pelham, W. E., & Waschbusch, D. A. (in press). Behavioral intervention in ADHD. In H. Quay & A. Quay (Eds.), *Handbook of disruptive behavior disorders.* New York: Plenum.

Pfiffner, L. J., & McBurnett, K. (1997). Social skills training with parent generalization: Treatment effects for children with ADD/ADHD. *Journal of Consulting and Clinical Psychology, 65,* 749-757.

Pfiffner, L. J., & O'Leary, S. G. (1987). The efficacy of all-positive management as a function of the prior use of negative consequences. *Journal of Applied Behavior Analysis, 20,* 265-271.

Pfiffner, L. J., O'Leary, S. G., Rosen, L. A., & Sanderson, W. C., Jr. (1985). A comparison of the effects of continuous and intermittent response cost and reprimands in the classroom. *Journal of Clinical Child Psychology, 14,* 348-352.

Pfiffner, L. J., Rosen, L. A., & O'Leary, S. G. (1985). The efficacy of an all-positive approach to classroom management. *Journal of A pplied Behavior Analysis, 18,* 257-261.

Pisterman, S., Firestone, P., McGrath, P., Goodman, J. T., Webster, I., Mallory, R., & Goffin, B. (1992a). The effects of parent training on parenting stress and sense of competence. *Canadian Journal of Behavioural Science, 24,* 41-58.

Pisterman, S., Firestone, P., McGrath, P., Goodman, J. T., Webster, I., Mallory, R., & Goffin, B. (1992b). The role of parent training in treatment of preschoolers with ADD-H. *American Journal of Orthopsychiatry, 62,* 397-408.

Pisterman, S., McGrath, P., Firestone, P., Goodman, J. T., Webster, I., & Mallory, R. (1989). Outcome of parent-mediated treatment of preschoolers with ADD with hyperactivity. *Journal of Consulting and Clinical Psychology, 57,* 628-635.

Pollard, S., Ward, E. M., & Barkley, R. A. (1983). The effects of parent training and Ritalin on the parent-child interactions of hyperactive boys. *Child and Family Behavior Therapy, 5,* 51-69.

Prinz, R. J., & Miller, G. E. (1994). Family-based treatment for childhood antisocial behavior: Experimental influences on dropout and engagement. *Journal of Consulting and Clinical Psychology, 62,* 645-650.

Rapport, M. D., Murphy, A., & Bailey, J. S. (1980). The effects of a response cost treatment tactic on hyperactive children. *Journal of School Psychology, 18,* 98-111.

Rapport, M. D., Murphy, H. A., & Bailey, J. S. (1982). Ritalin vs. response cost in the control of hyperactive children: A within-subjects comparison. *Journal of Applied Behavior Analysis, 15,* 205-216.

Richters, J. B., Arnold, L. E., Jensen, P. S., Abikoff, H., Conners, C. K., Greenhill, L. L., Hechtman, L., Hinshaw, S. P., Pelham, W. E., & Swanson, J. M. (1995). The National Institute of Mental Health collaborative multisite multimodal treatment study of children with Attention-Deficit/Hyperactivity Disorder (MTA): I. Background and rationale. *Journal of the American Academy of Child & Adolescent Psychiatry, 34,* 987-1000.

Robinson, P. W., Newby, T. J., & Ganzell, S. L. (1981). A token system for a class of underachieving hyperactive children. *Journal of Applied Behavior Analysis, 14,* 307-315.

Rosen, L. A., O'Leary, S. G., Joyce, S. A., Conway, G., & Pfiffner, L. J. (1984). The importance of prudent negative consequences for maintaining the appropriate behavior of hyperactive students. *Journal of Abnormal Child Psychology, 12,* 581-604.

Rosenbaum, A., O'Leary, S. G., & Jacob, R. G. (1975). Behavioral intervention with hyperactive children. Group consequences as a supplement to individual contingencies. *Behavior Therapy, 6,* 315-323.

Rubin, K. H., Bukowski, W., & Parker, J. G. (1998). Peer interactions, relationships, and groups. In W. Damon & N. Eisenberg (Eds.), *Handbook of child psychology (Vol.* 3, pp. 619-700). New York: Wiley.

Satterfield, J. H., Hoppe, C. M., & Schell, A. M. (1982). A prospective study of delinquency in 110 adolescent boys with attention deficit disorder and 88 normal adolescents. *American Journal of Psychiatry, 139,* 795-798.

Sherman, M., & Hertzig, M. E. (1991). Prescribing practices of Ritalin: The Suffolk County, New York study. In L. L. Greenhill & B. B. Osman (Eds.), *Ritalin: Theory and patient management* (pp. 187-193). New York: Mary Ann Liebert, Inc.

Spencer, R., Biederman, J., Wilens, T., Harding, M., O'Donnell, D., & Griffin, S. (1996). Pharmacotherapy of attention deficit hyperactivity disorder across the life cycle. *Journal of the American Academy of Child and Adolescent Psychiatry, 35,* 409-432.

Stableford, W., Butz, R., Hasazi, J., Leitenberg, H. & Peyser, J. (1976). Sequential withdrawal of stimulant drugs and use of behavior therapy with two hyperactive boys. *American Journal of Orthopsychiatry, 46,* 302-312.

Stokes, T. F., & Baer, D. M. (1977). An implicit technology of generalization. *Journal of Applied Behavior Analysis, 10,* 349-367.

Sullivan, M. A., & O'Leary, S. G. (1990) Maintenance following reward and cost token programs. *Behavior Therapy, 21,* 139-149.

Swanson, J. M. (1992). *School-based assessments and interventions for ADD students.* Irvine, CA: K.C. Publishing.

Swanson, J. M., McBurnett, K., Christian, D. L., & Wigal, T. (1995). Stimulant medication and treatment of children with ADHD. In T. H. Ollendick & R. J. Prinz (Eds.), *Advances in clinical child psychology* (Vol. 17, pp. 265-322). New York: Plenum.

Task Force on promotion and Dissemination of Psychological procedures. (1995). Training in and dissemination of empirically-validated psychological treatments: Report and recommendations. *The Clinical Psychologist, 48,* 3-24.

Thomas, D. R., Becker, W. C., & Armstrong, M. (1968). Production and elimination of disruptive classroom behavior by systematically varying teacher's behavior. *Journal of Applied Behavior Analysis, 1, 3545.*

Thurston, L. P. (1979). Comparison of the effects of parent training and of Ritalin in treating hyperactive children. *International Journal of Mental Health, 8,* 121-128.

Umbreit, J. (1995). Functional assessment and intervention in a regular classroom setting for the disruptive behavior of a student with ADHD. *Behavior Disorders, 20,* 267-278.

Van Houten, R., Nau, P. A., MacKenzie-Keating, S. E., Sameoto, D., & Colavecchia, B. (1982). An analysis of some variables influencing the effectiveness of reprimands. *Journal of Applied BehaviorAnalysis, 15,* 65-83.

Wahler, R. G. (1980). The insular mother: Her problems in parent-child treatment. *Journal of Applied Behavior Analysis, 13,* 207-219.

Walker, H. M., Hops, H., & Johnson, S. M. (1975). Generalization and maintenance of classroom treatment effects. *Behavior Therapy, 6,* 188-200.

Waltz, J., Addis, M. E., Koerner, K., & Jacobson, N. S. (1993). Testing the integrity of a psychotherapy protocol: Assessment of adherence and competence. *Journal of Consulting and Clinical Psychology, 61,* 620-630.

Waterman, G. S., & Ryan, N. D. (1993). Pharmacological treatment of depression and anxiety in children and adolescents. *School Psychology Review, 22,* 228-242.

Weiss, G., & Hechtman, L. (1993). *Hyperactive children grown up.* New York: Guilford.

Weisz, J. R., Donenberg, G. R., Han, S. S., & Weiss, B. (1995). Bridging the gap between laboratory and clinic in child and adolescent psychotherapy. *Journal of Consulting and Clinical Psychology, 63,* 688-701.

Wilson, G. T. (1996). Manual-based treatments: The clinical application of research findings. *Behaviour Research and Therapy, 34,* 295-314.

Witt, J. C. (1986). Teachers' resistance to the use of school-based interventions. *Journal of School Psychology, 24,* 37-44.

Wolraich, M., Drummond, T., Solomon, M . K., O' Brien, M. L., & Sivage, C. (1978). Effects of methylphenidate alone and in combination with behavior modification procedures on the behavior and academic performance of hyperactive children. *Journal of Abnormal Child Psychology, 6,* 149-161.

Wolraich, M. L., Hannah, J. N., Pinnock, T. Y., & Baumgaertel, A. (1996). Comparison of diagnostic criteria for attention-deficit hyperactivity disorder in a county-wide sample. *Journal of the American Academy of Child & Adolescent Psychiatry, 35,* 319-324.

Intervention:

D. PSYCHOTROPIC MEDICATIONS CATEGORIZED BY CHILD /ADOLESCENT DIAGNOSIS*

This chart provides some brief information on psychotropic medications frequently prescribed for students. The medications are listed with respect to the diagnosis that leads to their prescription. For more information, see the *Physicians Desk Reference*.

I. Diagnosis: Attention Deficit-Hyperactivity Disorder (ADHD)
Medication Types and Treatment Effects

A. *Stimulants*

Used as one part of a total treatment regimen that typically includes other remedial measures (psychological, educational, social) to address a behavioral syndrome characterized in terms of developmentally inappropriate symptoms including moderate- to-severe distractibility, short attention span, hyperactivity, emotional lability, and impulsivity. Stimulants are used with youngsters six years and older to improve attention span and decrease hyperactivity and impulsivity.

B. *Antidepressants*

Anti-depressants such as imipramine are approved for use in treating symptoms of depression in adolescents and adults. Use with children is restricted to treatment of enuresis of those at least 6 years old. Manufacturers state that a maximum dose of 2.5 mg/kg should not be exceeded in children (PDR, 1997). Although imipramine does not have FDA approval for use in ADHD, some clinicians consider it the next drug of choice for those not responding to stimulants; thus they prescribe it to improve mood and decrease hyperactivity. The effects usually are sedating and do not appear to improve concentration

C. *Adenergic antagonists*

These are centrally acting antihypertensive agents. The only therapeutic indication that has been approved by the FDA for advertising is treatment of hypertension in older adolescents and adults; its safety and efficacy in children have not been established. Some physicians regard adenergic antagonists such as clonidine as a possible alternative treatment for ADHD for those who do not respond well or who develop severe negative side effects when using stimulants

*Because many side effects are not predictable, all psychotropic medication requires careful, ongoing monitoring of psychological and physical conditions. Pulse, blood pressure, and signs of allergic reactions need to be monitored frequently, and when medication is taken for prolonged periods, periodic testing of hematological, renal, hepatic, and cardiac functions are essential. Prior to any other physical treatment (surgery, dentistry, etc.), it is important to inform physicians/ dentists that psychotropic medication is being taken. Finally, common side effects of many medications are drowsiness/ insomnia and related factors that can interfere with effective school performance.

Names: Generic (Commercial)	Some Side Effects and Related Considerations
A. Stimulants	
methylphenidate hydrochloride [Ritalin]	May manifest nervousness, dizziness, insomnia or drowsiness, tics, palpitations, loss of appetite, nausea, dermatitis, mood changes, growth suppression. If loss of appetite is a problem, administration of medication is recommended after meals. The last dose for a day is to be taken before 6 p.m. to preven, insomnia. Discontinuation is recommended if no improvement in one month. Periodic drug-free periods are recommended to assess efficacy.
dextroamphetamine sulfate [Dexedrine, Femdex, Dexampex]	May manifest restlessness, nervousness, hyperactivity, dizziness, insomnia, unusual fatigue, headache, palpitations, loss of appetite, weight loss, nausea, dry mouth, mood changes, hypersensitivity. The last dose for a day is to be taken before 6 p.m. to prevent insomnia. Periodic reductions in dosage or drug-free periods are recommended to assess efficacy. Gradual discontinuation is recommended if the medication has been used for a long-period.
magnesium pemoline [Cylert]	May manifest dizziness, irritability, insomnia, fatigue, tics, loss of appetite, nausea, weight loss, mild depression, seizures headache, abdominal discomfort. Long-term use may affect the liver and can produce physical and psycho logical dependence. Administration of medication is recommended for the morning to avoid insomnia. Periodic reductions in dosage or drug-free periods are recommended to assess efficacy. Liver function studies are recommended for long-term users.
B. Anti-depressants	
imipramine hydrochloride [Tofranil]	May manifest sedation, drowsiness, dizziness, headache, nausea, fatigue, dty mouth, constipation, heartburn, excessive weight gain, rash, excessive sweating, photosensitivity. Youngster is to move slowly from sitting or lying down positions. Care must be taken to minimize exposure to strong sun. Gradual discontinuation is recommended if the medication has been used for a long period.
C AdenergicAntagonist	
clonidine hyperchloride [Catapres]	May manifest sedation, dizziness, headache, nausea, anxiety, restlessness, nightmares, dry mouth, weight gain, constipation. Sudden discontinuation may cause blood pressure to shoot up.
Guanfacine [Tenex]	Use may lead to tiredness, headaches, stomach aches, and decreased appetite. Not recommended under age 12 as safety and efficacy have not been proven.

Medication and
ATTENTION DEFICIT-HYPERACTIVITY DISORDER

From the National Institute of Mental Health Website: Http://www.nimh.nih.gov/publicat/
The material has been abridged for use here to highlight information about psychotropic medication frequently prescribed for children and adolescents.

Cylert is available in one form, which naturally lasts 5 to 10 hours. Ritalin and Dexedrine come in short-term tablets that last about 4 hours, as well as longer-term preparations that last through the school day. The short-term dose is often more practical for children who need medication only during the school day or for special situations, like attending church or a prom, or studying for an important exam. The sustained-release dosage frees the child from the inconvenience or embarrassment of going to the office or school nurse every day for a pill. The doctor can help decide which preparation to use, and whether a child needs to take the medicine during school hours only or in the evenings and on weekends, too.

Other types of medication may be used if stimulants don't work or if the ADHD occurs with another disorder. Antidepressants and other medications may be used to help control accompanying depression or anxiety. Clonidine, a drug normally used to treat hypertension, may be helpful in people with both ADHD and Tourette's syndrome. Although stimulants tend to be more effective for some forms of the problem, clonidine may be used when stimulants don't work or can't be used. Clonidine can be administered either by pill or by skin patch and has different side effects than stimulants. The doctor works closely with each patient to find the most appropriate medication.

Some doctors recommend that children be taken off a medication now and then to see if the child still needs it. They recommend temporarily stopping the drug during school breaks and summer vacations, when focused attention and calm behavior are usually not as crucial. These "drug holidays" work well if the child can still participate at camp or other activities without medication.

Children on medications should have regular checkups. Parents should also talk regularly with the child's teachers and doctor about how the child is doing. This is especially important when a medication is first started, re-started, or when the dosage is changed.

The Medication Debate

As useful as these drugs may be, Ritalin and the other stimulants have sparked a great deal of controversy. Most doctors feel the potential side effects should be carefully weighed against the benefits before prescribing the drugs. While on these medications, some children may lose weight, have less appetite, and temporarily grow more slowly. Others may have problems falling asleep. Some doctors believe that stimulants may also make the symptoms of Tourette's syndrome worse, although recent research suggests this may not be true. Other doctors say if they carefully watch the child's height, weight, and overall development, the benefits of medication far outweigh the potential side effects. Side effects that do occur can often be handled by reducing the dosage.

It's natural for parents to be concerned about whether taking a medicine is in their child's best interests. Parents need to be clear about the benefits and potential risks of using these drugs. The child's pediatrician or psychiatrist can provide advice and answer questions.

Another debate is whether Ritalin and other stimulant drugs are prescribed unnecessarily for too many children. Remember that many things, including anxiety, depression, allergies, seizures, or problems with the home or school environment can make children seem overactive, impulsive, or inattentive. Critics argue that many children who do not have a true attention disorder are medicated as a way to control their disruptive behaviors. Careful assessment and ongoing monitoring by a mental health professional may help to counter these concerns.

(A variety of resources are listed on the next page)

V. A Few Resource Aids

A. Excerpts from the National Institute of Health Consensus Statement 1998: Diagnosis and Treatment of Attention Deficit Hyperactivity Disorder

B. Attention-Deficit/Hyperactivity Disorder in Children and Adolescents: Fact Sheet from U.S. Department of Health and Human Services

C. Providing an Appropriate Education to Children with ADD: An ERIC Digest

D. Attention Problems and Motivation

A. Excerpts from the National Institute of Health Consensus Statement 1998: Diagnosis and Treatment of Attention Deficit Hyperactivity Disorder*

***In November 1998, the National Institute of Mental Health sponsored the "NIH Consensus Development Conference on Diagnosis and Treatment of ADHD." The conference goal was to objectively present scientific data about controversial treatments to an independent panel which, in turn, composed a consensus statement. This statement has been widely circulated,; however, the process for this conference has come under some attack (see Peter Breggin, Center for the Study of Psychiatry and Psychology. Ph: 301/652-5580; Website-- http://www.breggin.com)**

We have excerpted the statements below to highlight the state of the art as stated in the report.

"...Attention deficit hyperactivity disorder or ADHD is a commonly diagnosed behavioral disorder of childhood that represents a major public health problem. Children with ADHD usually have pronounced difficulties and impairments resulting from the disorder across multiple settings. They also can experience long-term adverse effects on later academic, psychosocial, and psychiatric outcomes.

Despite progress in the assessment, diagnosis, and treatment of ADHD, this disorder and its treatment have remained controversial in many public and private sectors. The major controversy regarding ADHD continues to be the use of psychostimulants both for short-term and long-term treatment.

Although a consistent diagnostic test for ADHD does not exist, evidence supporting the validity of the disorder can be found. Further research will need to be conducted with respect to the dimensional aspects of ADHD, as well as the comorbid (coexisting) conditions present in both childhood and adult ADHD. Therefore, an important research need is the investigation of standardized age- and gender-specific diagnostic criteria.

The impact of ADHD on individuals, families, schools, and society is profound and necessitates immediate attention because a considerable share of resources from the health care system and various social service agencies is currently devoted to ADHD, often in a nonintegrated manner. Resource allocation based on better cost data leading to integrated care models needs to be developed for individuals with ADHD.

Effective treatments for ADHD have been evaluated primarily for the short term (approximately 3 months). These studies have included randomized clinical trials that have established the efficacy of stimulants and behavioral treatments for positive effects on the defining symptoms of ADHD and associated aggressiveness. Lack of consistent improvement beyond the core symptoms leads to the need for treatment strategies that utilize combined approaches. At the present time, there is a paucity of data providing information on long-term treatment beyond 14 months. Although trials combining drugs and behavioral modalities are underway, conclusive recommendations concerning treatment for the long term cannot be made easily.

The risks of treatment, particularly the use of stimulant medication, are of considerable interest. Substantial evidence exists of wide variations in the use of psychostimulants across communities and physicians, suggesting no consensus among practitioners regarding which ADHD patients should be treated with psychostimulants. As measured by attention/activity indices, patients with varying levels and types of problems (and even possibly unaffected individuals) may benefit from stimulant therapy. However, there is no evidence regarding the appropriate ADHD diagnostic threshold above which the benefits of psychostimulant therapy outweigh the risks.

Existing diagnostic and treatment practices, in combination with the potential risks associated with medication point to the need for improved awareness by the health service sector concerning an appropriate assessment, treatment, and follow-up. A more consistent set of diagnostic procedures and practice guidelines is of utmost importance. Current barriers to evaluation and intervention exist across the health and education sectors. The cost barriers and lack of coverage preventing the appropriate diagnosis and treatment of ADHD and the lack of integration with special educational services represent considerable long-term cost for society. The lack of information and education about accessibility and affordability of services must be remedied."

***

...The use of methylphenidate and amphetamine nationwide has increased significantly in recent years. The increased production and use of psychostimulants have intensified the concerns about use, overuse, and abuse....

We do not have an independent, valid test for ADHD, and there are no data to indicate that ADHD is due to a brain malfunction. Further research to establish the validity of the disorder continues to be a problem...

Further efforts to validate the disorder are needed: careful description of the cases, use of specific diagnostic criteria, repeated followup studies, family studies (including twin and

adoption studies), epidemiologic studies, and treatment studies. To the maximum extent possible, such studies should include various controls, including normal subjects and those with other clinical disorders...

Such studies may provide suggestions about subgrouping of patients that will turn out to be associated with different outcomes, responses to different treatment, and varying patterns of familial characteristics and illnesses. As homogeneous subgroups become identified, they can facilitate efforts to delineate alterations in structure and function...

Certain issues about the diagnosis of ADHD have been raised that indicate the need for further research to validate diagnostic methods...

1. Clinicians who diagnose this disorder have been criticized for merely taking a percentage of the normal population who have the most evidence of inattention and continuous activity and labeling them as having a disease. In fact, it is unclear whether the signs of ADHD represent a bimodal distribution in the population or one end of a continuum of characteristics.... related problems of diagnosis include differentiating this entity from other behavioral problems and determining the appropriate boundary between the normal population and those with ADHD...

2. ADHD often does not present as an isolated disorder, and comorbidities (coexisting conditions) may act as confounders in any research studies. This may account for some of the inconsistencies n research findings...

3. Although the prevalence of ADHD in the United States has been estimated at about 3 to 5 percent, it is clear that wider ranges of prevalence have been reported. The reported rate in some other countries is much lower. This indicates a need for better study of ADHD in different populations and better definition of the disorder...

4. All formal diagnostic criteria for ADHD were designed for diagnosing young children and have not been adjusted for older children and adults...

What Are the Effective Treatments for ADHD?

...A wide variety of treatments have been used for ADHD including, but not limited to, various psychotropic medications, psychosocial treatment, dietary management, herbal and homeopathic treatments, biofeedback, meditation, and perceptual stimulation/training. Of these treatment strategies, medications and psychosocial interventions have been the major focus of research. Studies on the efficacy of medication and psychosocial treatments for ADHD have focused primarily on a condition equivalent to DSM-IV combined type, meeting criteria for Inattention and Hyperactivity/Impulsivity...

... there are no long-term studies testing stimulants or psychosocial treatments lasting several years. There is no information on the long-term outcomes of medication-treated ADHD individuals in terms of educational and occupational achievements, involvement with the police, or other areas of social functioning...

MPH is the most studied and the most often used of the stimulants. These short-term trials have found beneficial effects on the defining symptoms of ADHD and associated aggressiveness as long as medication is taken. However, stimulant treatments do not "normalize" the entire range of behavior problems, and children under treatment still manifest a higher level of some behavior problems than normal children. Of concern are the consistent findings that despite the improvement in core symptoms, there is little improvement in academic achievement or social skills...

Although a number of other psychotropic medications have been used to treat ADHD, the extant outcome data from these studies do not allow for conclusions regarding their efficacy...

There is a long history of a number of other interventions for ADHD. These include dietary replacement, herbal exclusion or supplementation, various vitamin or mineral regimens, biofeedback, perceptual stimulation, and a host of others. Although these interventions have generated considerable interest and there are some controlled and uncontrolled studies using various strategies, the state of the empirical evidence regarding these interventions is uneven....

What Are the Risks of the Use of Stimulant Medication and Other Treatments?

... little information exists concerning the long-term effects of psychostimulants ...

It is well known that psychostimulants have abuse potential. Very high doses of psychostimulants, particularly of amphetamines, may cause central nervous system damage, cardiovascular damage, and hypertension. In addition, higher doses have been associated with compulsive behaviors and, in certain vulnerable individuals, movement disorders. There is a very small percentage of children and adults treated at high doses who have hallucinogenic responses. Drugs used for ADHD other than psychostimulants have their own adverse reactions: tricyclic antidepressants may induce cardiac arrhythmias, bupropion at high doses can cause seizures, and pemoline is associated with liver damage...

The degree of assessment and followup by primary care physicians varies significantly. This variance may contribute to the marked differences in appropriate prescribing practices. Adequate followup is required for any prescribed medications, especially for higher doses of psychostimulants. Although an increased risk of drug abuse and cigarette smoking is associated with childhood ADHD (see Question 2), existing studies come to conflicting conclusions as to whether use of psychostimulants increases or decreases the risk of abuse....

The increased availability of stimulant medications may pose risks for society. The threshold of drug availability that can lead to oversupply and consequent illicit use is unknown....

What Are the Existing Diagnostic and Treatment Practices, and What Are the Barriers to Appropriate Identification, Evaluation, and Intervention?

... Primary care and developmental pediatricians, family practitioners, (child) neurologists, psychologists, and psychiatrists are the providers responsible for assessment, diagnosis, and treatment for most children with ADHD. There exists wide variation among type of practitioner with respect to frequency of diagnosis of ADHD. The type of practitioner also determines the frequency of stimulant prescription management; data indicate that family practitioners prescribe medication more frequently than psychiatrists or pediatricians. This may be due in part to the limited time spent making the diagnosis. This propensity for prescribing medications may remove incentives for establishing educationally relevant interventions. Some practitioners invalidly use response to medication as a diagnostic criterion. Primary care practitioners are less likely to recognize comorbid (coexisting) disorders...

Diagnoses are often made in an inconsistent manner with children ....

What Are the Directions for Future Research?

Basic research is needed to better define ADHD....

...after years of clinical research and experience with ADHD, our knowledge about the cause or causes of ADHD remains speculative...

Diagnosis and Treatment of Attention Deficit Hyperactivity Disorder.
NIH Consensus Statement, 1998, Nov. 16-18; 16(2). The entire text is available on the web--
http://odp.od.nih.gov/consensus/cons/110/110_statement.htm

CHILD'S MENTAL HEALTH
...mmunities together

FACT SHEET

B. Fact Sheet from the U.S. Department of Health and Human Services

Attention-Deficit/Hyperactivity Disorder in Children and Adolescents

This is one of a series of fact sheets on the mental, emotional, and behavior disorders that can appear in childhood or adolescence. The Center for Mental Health Services extends appreciation to the National Institute of Mental Health for contributing to the preparation of this fact sheet. Any questions or comments about its contents may be directed to the Center for Mental Health Services' Knowledge Exchange Network (see contact information below).

What Is Attention-Deficit/Hyperactivity Disorder?

Young people with attention-deficit/hyperactivity disorder typically are overactive, unable to pay attention, and impulsive. They also tend to be accident prone. Children or adolescents with attention-deficit/hyperactivity disorder may not do well in school or even fail, despite normal or above-normal intelligence. Attention-deficit/hyperactivity disorder is sometimes referred to as ADHD.

What Are the Signs of Attention-Deficit/Hyperactivity Disorder?

There are actually three different types of attention-deficit/hyperactivity disorder, each with different symptoms. The types are referred to as ***inattentive***, ***hyperactive-impulsive***, and ***combined attention-deficit/hyperactivity disorder***.

Children with the ***inattentive*** type:

- have short attention spans;
- are easily distracted;
- do not pay attention to details;
- make lots of mistakes;
- fail to finish things;
- are forgetful;
- don't seem to listen; and
- cannot stay organized.

Children with the ***hyperactive-impulsive*** type:

- fidget and squirm;
- are unable to stay seated or play quietly;
- run or climb too much or when they should not;
- talk too much or when they should not;
- blurt out answers before questions are completed;
- have trouble taking turns; and
- interrupt others.

Combined attention-deficit/hyperactivity disorder, the most common type, is a combination of the inattentive and the hyperactive-impulsive types.

A diagnosis of one of the attention-deficit/hyperactivity disorders is made when a child has a number of the above symptoms, and the symptoms began before the age of 7 and lasted at least 6 months. Generally, symptoms have to be seen in at least two different settings (for example, at home and at school) before a diagnosis is made.

In this fact sheet, "Mental Health Problems" for children and adolescents refers to the range of all diagnosable emotional, behavioral, and mental disorders. They include depression, attention-deficit/hyperactivity disorder, and anxiety, conduct, and eating disorders, among others. Mental health problems affect one in every five young people at any given time.

"Serious Emotional Disturbances" for children and adolescents refers to the above disorders when they severely disrupt daily functioning in home, school, or community. Serious emotional disturbances affect 1 in every 20 young people at any given time.

U.S. Department of Health and Human Services
Substance Abuse and Mental Health Services Administration • Center for Mental Health Services
5600 Fishers Lane, Room 13-103 • Rockville, Maryland 20857 • Telephone 301.443.2792

CARING FOR EVERY CHILD'S MENTAL HEALTH: Communities Together Campaign

For information about children's mental health, contact the CMHS Knowledge Exchange Network
PO Box 42490 • Washington, DC 20015 • Toll-free 1.800.789.2647 • ~~FAX 302.656.4012~~
FAX 301.984.8796 • TTY 301.443.9006 • CMHS Electronic Bulletin Board 1.800.790.2647

SAMHSA

How Common Is Attention-Deficit/Hyperactivity Disorder?

Attention-deficit/hyperactivity disorder is found in as many as 1 in every 20 children. Studies have shown that boys with attention-deficit/hyperactivity disorder outnumber girls with the disorder about three to one.[1]

Children and adolescents with attention-deficit/hyperactivity disorder are at risk for many other disorders. About half of all young people with attention-deficit/hyperactivity disorder also have oppositional or conduct disorder, and about a fourth have an anxiety disorder. As many as one-third have depression, and about one-fifth have a learning disability. Sometimes a child or adolescent will have two or more of these disorders in addition to attention-deficit/hyperactivity disorder. Also, children with attention-deficit/hyperactivity disorder are at risk for developing personality disorders and substance abuse disorders when they are adolescents or adults.

Attention-deficit/hyperactivity disorder is a major reason why children are referred for mental health care. Boys are more likely to be referred for treatment than girls, in part because many boys with attention-deficit/hyperactivity disorder also have conduct disorder. The mental health services and special education required by children and adolescents with attention-deficit/hyperactivity disorder cost millions of dollars each year. Underachievement and lost productivity can cost these young people and their families even more.

What Causes Attention-Deficit/Hyperactivity Disorder?

Many causes of attention-deficit/hyperactivity disorder have been studied, but no one cause seems to apply to all young people with the disorder. Factors such as viruses, harmful chemicals in the environment, genetics, problems during pregnancy or delivery, or other things that impair brain development may play a role.

What Help Is Available for Families?

Many treatments—some with good scientific basis, some without—have been recommended for children and adolescents with attention-deficit/hyperactivity disorder. The best proven treatments are medication and behavior treatments.

Medication.[2] The most widely used drugs for treating attention-deficit/hyperactivity disorder are stimulants, such as amphetamine (Dexedrine, Dextrostat, Desoxyn), methylphenidate (Ritalin), and pemoline (Cylert). Stimulants increase the activity in parts of the brain that are underactive in children and adolescents with attention-deficit/hyperactivity disorder. Experts believe that this is why stimulants improve attention and reduce impulsive, hyperactive, or aggressive behavior. Individuals may respond better to one medication than to another. For example, clonidine (Catapres) is often used, although its effectiveness has not been clearly shown. A few antidepressants may also work for some patients. Tranquilizers like thioridazine (Mellaril) have also been shown to work for some young people. Care must be used in prescribing and monitoring all medication.

Like most medications, those used to treat attention-deficit/hyperactivity disorder have side effects. When taking these medications, some children may lose weight, have a smaller appetite, and temporarily grow more slowly. Others may have trouble falling asleep. However, many doctors believe the benefits of medication outweigh the possible side effects. Side effects that do occur can often be handled by reducing the dosage.

Behavior Treatment. Behavior treatments include:

- teaching parents and teachers how to manage and modify the child's or adolescent's behavior, such as rewarding good behavior;
- a daily report card to link the home and school efforts (where the parent rewards the child or adolescent for good school performance and behavior);
- summer and Saturday programs;
- special classrooms that use intensive behavior modification; and
- specially trained classroom aides.

It is clear that both stimulants and behavior treatment can be helpful in the short run (a few weeks or months). However, it is not clear how long the benefit lasts. The Federal Government's National Institute of Mental Health is supporting research on the long-term benefits of various treatments as well as research to find out whether medication

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[1] *This estimate provides only a rough gauge of the prevalence rates (number of existing cases in a defined time period) for this disorder. The National Institute of Mental Health is currently engaged in a nationwide study to determine with greater accuracy the prevalence of mental disorders among children and adolescents. This information is needed to increase understanding of mental health problems and to improve the treatments and services that help young people who are affected by these conditions.*

[2] *The medications mentioned above in this article are not the only medications which may be prescribed for these disorders.*

and behavior treatment are more effective when combined. There is also research on new medicines and other new treatments. Other Federal agencies carrying out research on attention-deficit/hyperactivity disorder include the Center for Mental Health Services and the Department of Education.

A child or adolescent in need of treatment or services and his or her family may need a plan of care based on the severity and duration of symptoms. Optimally, this plan is developed with the family, service providers, and a service coordinator, who is referred to as a case manager. Whenever possible, the child or adolescent is involved in decisions.

> In a "System of Care," local organizations work in teams—with families as critical partners—to provide a full range of services to children and adolescents with serious emotional disturbances. The team strives to meet the unique needs of each young person and his or her family in or near their home. These services should also address and respect the culture and ethnicity of the people they serve. (For more information on systems of care, call 1.800.789.2647.)

Tying together all the various supports and services in a plan of care for a particular child and family is commonly referred to as a "system of care." A system of care is designed to improve the child's ability to function in all areas of life—at home, at school, and in the community.

Can Attention-Deficit/Hyperactivity Disorder Be Prevented?

Because there are so many suspected causes of attention-deficit/hyperactivity disorder, prevention may be difficult. However, it always is wise to obtain good prenatal care and stay away from alcohol, tobacco, and other harmful chemicals during pregnancy and to get good general health care for the child. These recommendations may be particularly important if attention-deficit/hyperactivity disorder is suspected in other family members. Knowing that attention-deficit/hyperactivity disorder is in the family can alert parents to take early action to prevent bigger problems.

What Else Can Parents Do?

When it comes to attention-deficit/hyperactivity disorder, parents and other caregivers should be careful not to jump to conclusions. A high energy level alone in a child or adolescent does not mean that he or she has attention-deficit/hyperactivity disorder. The diagnosis depends on whether the child or adolescent can focus well enough to complete tasks that suit his or her age and intelligence. This ability is most likely to be noticed by a teacher. Therefore, input from teachers should be taken seriously.

If parents or other caregivers suspect attention-deficit/hyperactivity disorder, they should:

- Make an appointment with a psychiatrist, psychologist, child neurologist, or behavioral pediatrician for an evaluation. (Check with the child's doctor for a referral.)
- If the young person is diagnosed with attention-deficit/hyperactivity disorder, be patient. The disorder may take a long time to improve.
- Instill a sense of competence in the child or adolescent. Promote his or her strengths, talents, and feelings of self-worth.
- Remember that failure, frustration, discouragement, low self-esteem, and depression, in many cases, cause more problems than the disorder itself.
- Get accurate information from libraries, hotlines, or other sources.
- Ask questions about treatments and services.
- Talk with other families in the community.
- Find family network organizations.

It is important that people who are not satisfied with the mental health care they are receiving to discuss their concerns with the provider, to ask for information, and/or to seek help from other sources.

Important Messages About Children's and Adolescents' Mental Health:

- Every child's mental health is important.
- Many children have mental health problems.
- These problems are real and painful and can be severe.
- Mental health problems can be recognized and treated.
- Caring families and communities working together can help.
- Information is available—for free publications, references, and referrals to local and national resources and organizations—call 1.800.789.2647; TTY 301.443.9006; http://www.mentalhealth.org/

C. Providing an Appropriate Education for Children with Attention Deficit Disorder

ERIC Clearinghouse on Handicapped and Gifted Children;
Council for Exceptional Children, Reston, VA

ERIC/CUE Digest, Number 512, ED0-EC-92-2

THIS DIGEST WAS CREATED BY ERIC, THE EDUCATIONAL RESOURCES INFORMATION CENTER. FOR MORE INFORMATION ABOUT ERIC, CONTACT ACCESS ERIC 1-800-LET-ERIC

CLARIFICATION OF TERMS

Throughout this digest, ADD will be used to refer to "attention deficit disorder," or "attention deficit hyperactivity disorder" (ADHD). In the past, the term "minimal brain dysfunction" was also used.

CHILDREN WITH ADD

It is estimated that children with ADD constitute 3% to 5% of the current school-age population, which would represent 1.35 to 2.25 million children. Most experts agree that ADD is a neurobiological disorder that can have multiple causes. Research indicates that children with ADD are likely to have a biological relative with ADD. In addition, evidence also suggests that neurologic, neurochemical or, in some cases, toxic factors may be involved. Other factors such as medical conditions, medication side effects, familial functioning, or environmental conditions may exacerbate an existing disorder or contribute to the development of ADD-like problems in some children (Parker, 1992).

DIAGNOSIS

As with all other disabling conditions, evaluation of children suspected of having ADD should be a multistep, multidisciplinary procedure. First the assessment should determine whether a child meets criteria for diagnosis of ADD; then, further assessment should determine the degree to which the child's educational performance is adversely affected. This information will help determine what types of educational services are necessary to assist the student.

The first step requires gathering information about the child from a number of sources and in a variety of ways. Medical information; parent or guardian descriptions of the child's physical, mental, social, and emotional development; school information; descriptions of social behavior and classroom adjustment; and assessment of the child's cognitive functioning are essential to making an accurate diagnosis. Because the behavior of children thought to have ADD can vary widely in different situations and environments, experts recommend obtaining information from many sources, and observing the child in different settings and at different times. Evaluations of children suspected of having ADD often include rating scales completed by parents and teachers.

SCHOOL RESPONSIBILITIES

Schools must provide appropriate educational services to students who have been identified as having ADD. In September 1991, the Department of Education issued a policy clarification on the topic of children with attention deficit disorder (Davila, Williams, & MacDonalt, 1991). The memorandum was intended to clarify state and local responsibility under federal law for meeting the needs of children with ADD in the educational system as a whole.

The responsibility for meeting the educational needs of children with ADD rests with the entire educational system, not just with particular sectors. Thus, if the needs of these children are to be fully met in the schools (whether through general or special education programs), increased coordination, collaboration, and consultation will have to occur among regular educators, special educators, administrators, and related services personnel. The report recognizes that:

*Regular classroom teachers are important in identifying appropriate educational adaptations and interventions for many children with ADD.

*State and local districts should take the necessary steps to promote coordination between special education and regular education programs.

*Regular education teachers and other personnel need training to develop a greater awareness of children with ADD and of adaptations that can be implemented in regular education programs to address the instructional needs of these children.

Children who are experiencing educational difficulties, whether from ADD or some other cause, often fail to receive any assistance until after difficulties, such as distractibility, disorganization, or inability to complete assignments on time, have caused them to fall significantly behind their classmates. By the time children have experienced such failure, they generally have already lost a great deal of academic ground. In addition, school failure may contribute to, or worsen, a student's feelings of low self-esteem, depression, or anxiety.

FEDERAL LAWS AFFECTING CHILDREN WITH ADD

Both the Individuals with Disabilities Education Act (IDEA) and Section 504 of the Rehabilitation Act of 1973 provide coverage for children with ADD. When the disability adversely affects educational performance, eligibility for special education should be approached through the processes of IDEA. When the disability does not affect educational performance but does substantially limit one or more major life activities, eligibility should be approached through Section 504. The following are highlights of each law as it affects the education of children with ADD.

1. Individuals with Disabilities Education Act, Part B:

*Requires that state and local districts make a free appropriate public education (FAPE) available to all eligible children with disabilities.

*Requires that the rights and protections of Part B of IDEA are extended to children

with ADD and their parents.

*Requires that an evaluation be done, without undue delay, to determine if the child has one or more of 13 specified disabling conditions and requires special education and related services.

*Requires that children with ADD be classified as eligible for services under the "other health impaired" category in instances where ADD is a chronic or acute health problem that results in limited alertness that adversely affects a child's educational performance. Children with ADD can also be served under the categories of "learning disabilities" or "seriously emotionally disturbed," if the evaluation finds these conditions are also present.

*Does not allow local districts to refuse to evaluate the possible need for special education and related services of a child with a prior medical diagnosis of ADD solely by reason of that medical diagnosis. On the other hand, a medical diagnosis of ADD does not automatically make a child eligible for services under Part B (IDEA).

*Requires that a full and individual evaluation of the child's educational needs must be conducted in accordance with requirements in Part B (IDEA). These requirements include:

A multidisciplinary team must perform the evaluation. At least one teacher or other specialist with knowledge in the area of ADD must be on the team.

*Requires that a due process hearing take place, at the request of the parents, if there is disagreement between the local district and the parent over the request for evaluation, the evaluation, or the determinations for services.

2. Section 504 of the Rehabilitation Act of 1973:

*Prohibits discrimination on the basis of disability by recipients of federal funds.

*Provides appropriate education for children who do not fall within the disability categories specified in Part B (IDEA). Examples of potential conditions not typically covered under Part B (IDEA) are:

communicable diseases (HIV, tuberculosis); medical conditions (asthma, allergies, diabetes, heart disease); temporary medical conditions due to illness or accident, drug/alcohol addiction

*Requires that a free appropriate public education be provided to each qualified child who is disabled but does not require special education and related services under Part B (IDEA). A free appropriate education (FAPE) under Section 504 includes:

Regular or special education and related aids and services that are designed to meet the individual student's needs and are based on adherence to the regulatory requirements on education setting, evaluation, placement, and procedural safeguards.

*Guarantees parents the right to contest the outcome of an evaluation if a local district determines that a child is not disabled under Section 504.

*Requires the local district to make an individualized determination of the child's educational needs for regular or special education or related aids and services if the child is found eligible under Section 504.

*Requires the implementation of an individualized education program (IEP). One means of meeting the free appropriate public education requirements of Section 504 is to follow the IEP guidelines as set forth in the regulations for Part B (IDEA).

*Requires that the child's education must be provided in the regular education classroom unless it is demonstrated that education in the regular environment with the use of supplementary aids and services cannot be achieved satisfactorily.

*Requires that necessary adjustments be made in the regular classroom for children who qualify under Section 504.

REFERENCES

Davila, R. R., Williams, M. L., & MacDonalt, J. T. (September 16, 1991). "Clarification of policy to address the needs of children with attention deficit disorders within general and/or special education." Washington, DC: U.S. Department of Education, Office of Special Education and Rehabilitation Services.

Parker, H. (1992). "The ADD hyperactivity handbook for schools." Plantation, FL: Impact.

Note. This digest is adapted from two sources:

"Children with ADD: A Shared Responsibility. Based on a Report of The Council for Exceptional Children's Task Force on Children with Attention Deficit Disorder (1992)." Reston, VA: The Council for Exceptional Children, 1920 Association Drive, Reston, VA 22091. Order No. P385.

Irland, B. (1992, Winter). "Making It Perfectly Clear; ADD/ADHD Students Can Qualify for Services." THE SCOOP. National Learning Differences Network, 82 S. Townline Road, Sandusky, MI 48471.

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VI. Keeping Attention Problems in Broad Perspective

Some people believe that the reason they are good readers is because they were taught by a phonetic approach. Others believe they are good readers because they were taught with a language experience or a combination approach. Indeed, most good readers seem to advocate for whatever method they think worked for them.

Our reading of the research literature, however, indicates that almost every method has *not* worked for a significant number of people. For *a few,* their reading problems stem from unaccommodated disabilities, vulnerabilities, and individual developmental differences. For many, the problems stem from socioeconomic inequities that affect readiness to learn at school and the quality of schools and schooling.

If our society truly means to provide the opportunity for all students to succeed at school, fundamental changes are needed so that teachers can personalize instruction and schools can address barriers to learning. Policy makers can call for higher standards and greater accountability, improved curricula and instruction, increased discipline, reduced school violence, and on and on. None of it means much if the reforms enacted do not ultimately result in substantive changes in the classroom and throughout a school site.

Current moves to devolve and decentralize control may or may not result in the necessary transformation of schools and schooling. Such changes do provide opportunities to reorient from "district-centric" planning and resource allocation. For too long there has been a terrible disconnection between central office policy and operations and how programs and services evolve in classrooms and schools. The time is opportune for schools and classrooms to truly become the center and guiding force for all planning. That is, planning should begin with a clear image of what the classroom and school must do to teach all students effectively. Then, the focus can move to planning how a family of schools (e.g., a high school and its feeders) and the surrounding community can complement each other's efforts and achieve economies of scale. With all this clearly in perspective, central staff and state and national policy can be reoriented to the role of developing the best ways to support local efforts as defined locally.

At the same time, it is essential not to create a new mythology suggesting that every classroom and school site is unique. There are fundamentals that permeate all efforts to improve schools and schooling and that should continue to guide policy, practice, and research.

For example:

- The curriculum in every classroom must include a major emphasis on acquisition of basic knowledge and skills. However, such basics must be understood to involve more than the three Rs and cognitive development. There are many important areas of human development and functioning, and each contains "basics" that individuals may need help in acquiring. Moreover, any individual may require special accommodation in any of these areas.

- Every classroom must address student motivation as an antecedent, process, and outcome concern.

- Remedial procedures must be *added* to instructional programs for certain individuals, but only after appropriate nonremedial procedures for facilitating learning have been tried. Moreover, such procedures must be designed to build on strengths and must not supplant a continuing emphasis on promoting healthy development.

- Beyond the classroom, schools must have policy, leadership, and mechanisms for developing school-wide programs to address barriers to learning. Some of the work will need to be in partnership with other schools, some will require weaving school and community resources together. The aim is to evolve a comprehensive, multifaceted, and integrated continuum of programs and services ranging from primary prevention through early intervention to treatment of serious problems. Our work suggests that at a school this will require evolving programs to (1) enhance the ability of the classroom to enable learning, (2) provide support for the many transitions experienced by students and their families, (3) increase home involvement, (4) respond to and prevent crises, (5) offer special assistance to students and their families, and (6) expand community involvement (including volunteers).

- Leaders for education reform at all levels are confronted with the need to foster effective scale-up of promising reforms. This encompasses a major research thrust to develop efficacious demonstrations and effective models for replicating new approaches to schooling.

- Relatedly, policy makers at all levels must revisit existing policy using the lens of addressing barriers to learning with the intent of both realigning existing policy to foster cohesive practices and enacting new policies to fill critical gaps.

Clearly, there is ample direction for improving how schools address barriers to learning. The time to do so is now. Unfortunately, too many school professionals and researchers are caught up in the day-by-day pressures of their current roles and functions. Everyone is so busy "doing" that there is no time to introduce better ways. One is reminded of Winnie-The-Pooh who was always going down the stairs, bump, bump, bump, on his head behind Christopher Robin. He thinks it is the only way to go down stairs. Still, he reasons, there might be a better way if only he could stop bumping long enough to figure it out.

Relevant Center Materials

UCLA Center for Mental Health in Schools

SOME SPECIAL RESOURCES FROM THE CLEARINGHOUSE

The mission of the Center is to improve outcomes for young people by enhancing policies, programs, and practices relevant to mental health in schools in schools.

Under the auspices of the School Mental Health Project in the Department of Psychology, our Center approaches mental health and psychosocial concerns from the broad perspective of addressing barriers to learning and promoting healthy development. Specific attention is given to policies and strategies that can counter fragmentation and enhance collaboration between school and community programs.

A partial list...

I. Introductory Packets

Working Together: From School-Based Collaborative Teams to School-Community-Higher Education Connections

This packet discusses the processes and problems related to working together at school sites and in school-based centers. It also outlines models of collaborative school-based teams and interprofessional education programs*.

Violence Prevention and Safe Schools

This packet outlines selected violence prevention curricula and school programs and school-community partnerships for safe schools. It emphasizes both policy and practice.

Least Intervention Needed: Toward Appropriate Inclusion of Students with Special Needs

This packet highlights the principle of *least intervention needed* and its relationship to the concept of *least restrictive environment.* From this perspective, approaches for including students with disabilities in regular programs are described.

Parent and Home Involvement in Schools

This packet provides an overview of how home involvement is conceptualized and outlines current models and basic resources. Issues of special interest to under-served families are addressed.

Assessing to Address Barriers to Learning

This packet discusses basic principles, concepts, issues, and concerns related to assessment of various barriers to student learning. It also includes resource aids on procedures and instruments to measure psychosocial, as well as environmental barriers to learning.*

*You may download the indicated documents through our website at: http://smhp.psych.ucla.edu

Cultural Concerns in Addressing Barriers to Learning

This packet highlights concepts, issues and implications of multiculturalism/cultural competence in the delivery of educational and mental health services, as well as for staff development and system change. It also includes resource aids on how to better address cultural and racial diversity in serving children and adolescents.*

Dropout Prevention

This packet highlights intervention recommendations and model programs, as well as discusses the motivational underpinnings of the problem.*

Learning Problems and Learning Disabilities

This packet identifies learning disabilities as one highly circumscribed group of learning problems, and outlines approaches to address the full range of problems.*

Teen Pregnancy Prevention and Support

This packet covers model programs and resources and offers an overview framework for devising policy and practice.*

II. Resource Aid Packets

Screening/Assessing Students: Indicators and Tools

This packet is designed to provide some resources relevant to screening students experiencing problems. In particular, this packet includes a perspective for understanding the screening process and aids for initial problem identification and screening of several major psychosocial problems.*

Responding to Crisis at a School

This packet provides a set of guides and handouts for use in crisis planning and as aids for training staff to respond effectively. It contains materials to guide the organization and initial training of a school-based crisis team, as well as materials for use in ongoing training, and as information handouts for staff, students, and parents.*

Addressing Barriers to Learning: A Set of Surveys to Map What a School Has and What It Needs

This packet provides surveys covering six program areas and related system needs that constitute a comprehensive, integrated approach to addressing barriers and thus enabling learning. The six program areas are (1) classroom-focused enabling, (2) crisis assistance and prevention, (3) support for transitions, (4) home involvement in schooling, (S) student and family assistance programs and services, and (6) community outreach for involvement and support (including volunteers).*

Students and Psychotropic Medication: The School's Role

This packet underscores the need to work with prescribers in ways that safeguard the student and the school. It contains aids related to safeguards and for providing the student, family, and staff with appropriate information on the effects and monitoring of various psychopharmacological drugs used to treat child and adolescent psycho-behavioral problems.*

*You may download the indicated documents through our website at: http://smhp.psych.ucla.edu

Substance Abuse

This packet offers some guides to provide schools with basic information on widely abused drugs and indicators of substance abuse. It also includes some assessment tools and reference to prevention resources.*

Clearinghouse Catalogue

Our Clearinghouse contains a variety of resources relevant to the topic of mental health in schools. This annotated catalogue classifies these materials, protocols, aids, program descriptions, reports, abstracts of articles, information on other centers, etc. under three main categories: policy and system concerns, program and process concerns, and specific psychosocial problems. (Updated regularly)*

Catalogue of Internet Sites Relevant to Mental Health in Schools

This catalogue contains a compilation of Internet resources and links related to addressing barriers to student learning and mental health in schools. (Updated regularly)*

Organizations with Resources Relevant to Addressing Barriers to Learning: A Catalogue of Clearinghouses, Technical Assistance Centers, and Other Agencies

This catalogue categorizes and provides contact information on organizations focusing on children's mental health, education and schools, school-based and school-linked centers, and general concerns related to youth and other health related matters. (Updated regularly)*

Where to Get Resource Materials to Address Barriers to Learning

This resource offers school staff and parents a listing of centers, organizations, groups, and publishers that provide resource materials such as publications, brochures, fact sheets, audiovisual & multimedia tools on different mental health problems and issues in school settings.*

III. Technical Aid Packets

School-Based Client Consultation, Referral, and Management of Care

This aid discusses why it is important to approach student clients as consumers and to think in terms of managing *care*, not *cases*. It outlines processes related to problem identification, triage, assessment and client consultation, referral, and management of care. It also provides discussion of prereferral intervention and referral as a multifaceted intervention. It clarifies the nature of ongoing management of care and the necessity of establishing mechanisms to enhance systems of care. It also provides examples of tools to aid in all these processes ware included.*

School-Based Mutual Support Groups (For Parents, Staff; and Older Students)

This aid focuses on steps and-tasks related to establishing mutual support groups in a school setting. A sequential approach is described that involves (1) working within the school to get started, (2) recruiting members, (3) training them on how to run their own meetings, and (4) offering off-site consultation as requested. The specific focus here is on parents; however, the procedures are readily adaptable for use with others, such as older students and staff.*

*You may download the indicated documents through our website at: http://smhp.psych.ucla.edu

Volunteers to Help Teachers and School Address Barriers to Learning

This aid outlines (a) the diverse ways schools can think about using volunteers and discusses how volunteers can be trained to assist designated youngsters who need support, (b) steps for implementing volunteer programs in schools, (c) recruitment and training procedures and (d) key points to consider in evaluating volunteer programs. The packet also includes resource aids and model programs.*

Welcoming and Involving New Students and Families

This aid offers guidelines, strategies, and resource aids for planning, implementing, and evolving programs to enhance activities for welcoming and involving new students and families in schools. Programs include home involvement, social supports, and maintaining involvement.*

Guiding Parents in Helping Children Learn

This aid is specially designed for use by professionals who work with parents and other nonprofessionals, and consists of a "booklet" to help nonprofessionals understand what is involved in helping children learn. It also contains information about basic resources professionals can draw on to learn more about helping parents and other nonprofessionals enhance children's learning and performance. Finally, it includes additional resources such as guides and basic information parents can use to enhance children's learning outcomes.*

IV. Technical Assistance Samplers

Behavioral Initiatives in Broad Perspective

This sampler covers information on a variety of resources focusing on behavioral initiatives to address barriers to learning (e.g., state documents, behavior and school discipline, behavioral assessments, model programs on behavioral initiatives across the country, school wide programs, behavioral initiative assessment instruments, assessing resources for school-wide approaches).*

School-Based Health Centers (7/98)

This sampler includes information on a wide range of issues dealing with school-based health centers (e.g., general references, facts & statistics, funding, state & national documents, guides, reports, model programs across the country).*

V. Guides to Practice and Continuing Education Units -- Ideas into Practice

Mental Health and School-Based Health Centers

This revised guidebook is virtually a completely new aid. The introductory overview focuses on where the mental health facets of school-based health centers (SBHCs) fit into the work of schools. This is followed by three modules. Module I addresses problems related to limited center resources (e.g., limited finances) and how to maximize resource use and effectiveness); Module II focuses on matters related to working with students (consent, confidentiality, problem identification, prereferral interventions, screening/assessment, referral, counseling, prevention/mental health education, responding to crises, management of care); Module III explores quality improvement, evaluating outcomes, and getting credit for all you do. Each module is organized into a set of units with many resource aids (sample forms and special exhibits, questionnaires, interviews, screening indicators) for use as part of the day-by-day SBHC operational focus on mental health and psychosocial concerns. A coda highlights ways to and benefits of weaving together all resources for addressing barriers to student learning into a comprehensive, integrated approach.

*You may download the indicated documents through our website at: http://smhp.psych.ucla.edu

What Schools Can Do to Welcome and Meet the Needs of All Students and Families

This guidebook offers program ideas and resource aids that can help address some major barriers that interfere with student learning and performance. Much of the focus is on early-age interventions; some is on primary prevention; some is on addressing problems as soon after onset. The guidebook includes the following: Schools as Caring, Learning Environments, Welcoming and Social Support: Toward a Sense of Community Throughout the School; Using Volunteers to Assist in Addressing School Adjustment Needs and Other Barriers to Learning; Home Involvement in Schooling; Connecting a Student with the Right Help; Understanding and Responding to Learning Problems and Learning Disabilities; Response to Students' Ongoing Psychosocial and Mental Health Needs; Program Reporting: Getting Credit for All You Do and, Toward a Comprehensive, Integrated Enabling Component.

CONTINUING EDUCATION MODULES

Addressing Barriers to Learning: New Directions for Mental Health in Schools

This module consists of three units to assist mental health practitioners in addressing psychosocial and mental health problems seen as barriers to students' learning and performance. It includes procedures and guidelines on issues such as initial problem identification, screening/assessment, client consultation & referral, triage, initial and ongoing case monitoring, mental health education, psychosocial guidance, support, counseling, consent, and confidentiality.*

Mental Health in Schools: New Roles for School Nurses

The above three units have been adapted specifically for school nurses. A subset of the nursing material will appear in video/manual self-study format produced by National Association of School Nurses with support of the Robert Wood Johnson Foundation and National Education Association.*

Continuing Education Related to the Enabling Component

Classroom Focused Enabling

This module consists of guidelines, procedures, strategies, and tools designed to enhance classroom based efforts by increasing teacher effectiveness for preventing and managing problems in the classroom and helping address barriers to learning.

VI. Feature Articles from Our Newsletter*

Mental Health in Schools: Emerging Trends (Winter '96)

Presents an overview of the need to include a focus on mental health in schools as part of efforts to address barriers to student learning. Highlights emerging trends and implications for new roles for mental health professionals. Includes tables outlining the nature and scope of students' needs, the range of professionals involved, and the types of functions provided.

School-Linked Services and Beyond (Spring '96)

Discusses contributions of school-linked services and suggests it is time to think about more comprehensive models for promoting healthy development and addressing barriers to learning.

*You may download the indicated documents through our website at: http://smhp.psych.ucla.edu

Labeling Troubled and Troubling Youth: The Name Game (Summer '96)

Underscores bias inherent in current diagnostic classifications for children and adolescents and offers a broad framework for labeling problems so that transactions between person and environment are not downplayed. Implications for addressing the full range of problems are discussed.

Comprehensive Approaches & Mental Health in Schools (Winter '97)

Discusses the enabling component, a comprehensive, integrated approach that weaves six main areas into the fabric of the school to address barriers to learning and promote healthy development for *all* students.

Behavior Problems: What's a School to Do? (Spring '97)

Sheds light on the prevailing disciplinary practices in schools and their consequences for classroom management purposes. Beyond discipline and social skills training, the article underscores the need to look into the underlying motivational bases for students' misbehavior for intervention programs to take effect.

Enabling Learning in the Classroom: A Primary Mental Health Concern (Spring '98)

Highlights the importance of institutionalizing the *enabling component* in schools. Discusses how *classroom-focused enabling* (one of six clusters of programmatic activity) enhances the teacher's array of strategies for working with a wide range of individual differences (including learning and behavior problems) and creating a caring context for learning in the classroom.

*You may download the indicated documents through our website at: http://smhp.psych.ucla.edu

Note: A small fee is charged to cover copying, first class mailing, and handling for most items. See our clearinghouse's order form.

For further information, you can contact the center at:

Write: School Mental Health Project/Center for Mental Health in Schools, Box 951563, Department of Psychology, UCLA, Los Angeles, CA 90095-1563
Ph: (310) 825-3634 Fax: (310) 206-8716 E-mail: smhp@ucla.edu

Also try out our website: **http://smhp.psych.ucla.edu/**

The Center is co-directed by Howard Adelman and Linda Taylor and operates under the auspices of the School Mental Health Project, Dept. of Psychology, UCLA. Support comes in part from the Department of Health and Human Services, Public Health Service, Health Resources and Services Administration, Maternal and Child Health Bureau, Office of Adolescent Health.

U.S. Department of Health & Human Services
Public Health Service
HRSA
Health Resources & Services Administration
Maternal & Child Health Bureau
Office of Adolescent Health

To maintain a broad perspective of the reforms needed to address barriers to learning, we organize our thinking and materials around the following three categories:

Systemic Concerns

- Policy issues related to mental health in schools
- Mechanisms and procedures for program/service coordination
  - Collaborative Teams
  - School-community service linkages
  - Cross disciplinary training and interprofessional education
- Comprehensive, integrated programmatic approaches (as contrasted with fragmented, categorical, specialist oriented services)
- Issues related to working in rural, urban, and suburban areas
- Restructuring school support service
  - Systemic change strategies
  - Involving stakeholders in decisions
  - Staffing patterns
  - Financing
  - Evaluation, Quality Assurance
  - Legal Issues
- Professional standards

Programs and Process Concerns

- Clustering activities into a cohesive, programmatic approach
  - Support for transitions
  - Mental health education to enhance healthy development & prevent problems
  - Parent/home involvement
  - Enhancing classrooms to reduce referrals (including prereferral interventions)
  - Use of volunteers/trainees
  - Outreach to community
  - Crisis response
  - Crisis and violence prevention (including safe schools)
- Staff capacity building & support
  - Cultural competence
  - Minimizing burnout
- Interventions for student and family assistance
  - Screening/Assessment
  - Enhancing triage & ref. processes
  - Least Intervention Needed
  - Short-term student counseling
  - Family counseling and support
  - Case monitoring/management
  - Confidentiality
  - Record keeping and reporting
  - School-based Clinics

Psychosocial Problems

- Drug/alcoh. abuse
- Depression/suicide
- Grief
- Dropout prevention
- Learning problems
- School adjustment (including newcomer acculturation)
- Pregnancy prevention/support
- Eating problems (anorexia, bulim.)
- Physical/Sexual Abuse
- Neglect
- Gangs
- Self-esteem
- Relationship problems
- Anxiety
- Disabilities
- Gender and sexuality
- Reactions to chronic illness

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